CONSTRUCTION NEWS

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RAILWAYS.

(**Denotes that this work is advertised in Engineering News.*)

Vermont.—Barre Granite R. R.—Application has been made to the Public Service Commission for a charter for the incorporation of the Barre Vermont R. R. It is proposed to construct a line, 10 miles long, from Williamstown to Barre.

Massachusetts.—Boston & Maine R. R.—This company contemplates four-tracking its road through Lynn and will construct bridges across Market St., Washington St. and Central Sq. Bertrand T. Wheeler is Ch. Engr.

New York.—Lehigh Valley R. R.—This company's proposal to buy the Hamburgh canal strip in Buffalo for $500,000, and to make sundry improvements, including the elevation of its tracks, the elimination of grade crossings, and the building of a new passenger station within two years, has been accepted by the Board of Aldermen. The estimated cost of this project is $3,000,000. E. B. Ashley, New York, is Ch. Engr.

New York.—New York Central & Hudson River R. R.—Plans are being prepared for the elimination of grade crossings in the city of Syracuse and the tentative plans have been submitted to the Syracuse Grade Crossing Commission. It will be months before any decision is reached on this elimination, for it involves a number of intricate problems. The railroad has an old franchise permitting it to run to Syracuse and has, for upwards of 50 years, operated across the principal business street of the city. With the abandonment of the Erie Canal, a way may be found out of this problem but both the railroad and city officials are going slow on the matter.

***Maryland.**—Marine Ry.—Oliver Reeder & Sons, Covington St., Baltimore, have awarded a contract to H. I. CRANDALL & SON CO., Boston, Mass., to install a marine railway.

North Carolina.—Goldsboro, Seven Springs & Swansboro R. R.—A charter has been granted to this company to build and operate a line from Goldsboro to Swansboro, about 70 miles. It is capitalized at $1,500,000. The incorporators include R. C. Griffin and William A. Robertson.

Florida.—Col. R. F. Rogers, Lynne, is interested in the construction of a railway in Florida, which is backed by the Upchurch Co. It will run from Norwalk down through the Florida National Forest, past Lake Juniper and Lynne, crossing the Oklawaha at Sharps Ferry and into Ocala.

Alabama.—Louisville & Nashville R. R.—This company contemplates spending $500,000 for improvements in Montgomery. The railroad yard will be enlarged and the line from Calera to Montgomery will be double-tracked. W. H. Courtenay, Louisville, Ky., is Ch. Engr.

Louisiana.—New Iberia, Lafayette & Northwestern R. R.—This company has been incorporated to construct a line from New Iberia, through Church Point, St. Martinville and Lafayette, to Eunice, where it will probably connect with the Chicago, Rock Island & Pacific Ry. F. M. Welch is Pres. J. P. Colomb, of Lafayette, and Jules Dreyfuss, of New Iberia, are on the Board of Directors.

Michigan.—Grand Rapids & Indiana Ry.—This company will revise grades and alinement on its Lake City branch of eleven miles. E. H. Barnes, Grand Rapids, Mich., is Ch. Engr.

Illinois.—Johnson City Connecting Ry.—A company bearing this name has been incorporated in East St. Louis for the purpose of constructing and operating a line in Williamson County. L. O. Whitnel and H. L. Browning, East St. Louis, are incorporators.

Kansas.—Missouri Pacific System.—It is rumored that this company is contemplating the extension of its branch, now terminating at Larned, to La Crosse. E. F. Mitchell, St. Louis, Mo., is Ch. Engr.

This company will also plan to build an extension of its line from Ottawa to Lawrence.

Montana.—Chicago, Milwaukee & St. Paul R. R.—It is reported that this company will soon begin the construction of a line between Lewiston and Roy. This will be 46 miles long. F. C. Loweth, Chicago, Ill., is Ch. Engr.

***Montana.**—Great Northern Ry.—The contract for constructing 30 miles of railroad between Lewiston, Mont., and Moccasin, Wyo., has been awarded to A. E. WICKAM, Council Bluffs, Iowa, at $500,000. A. H. Hogeland, St. Paul, Minn., is Ch. Engr.

Missouri.—St. Louis & Missouri Southern Ry.—This company has completed surveys for the construction of an 80-mile line from Marston to Cape Guardian. No contracts for construction work have been let. E. S. McCarty, New Madrid, is Pres.

***Missouri.**—Mexico, Perryville & Hannibal Ry.—This company has awarded the contract for the construction of 40 miles of its line from Columbia to Hannibal, to SCOTT & FARNWORTH, Mexico, Mo., F. Stevens is Ch. Engr.

Arkansas.—Memphis, Dallas & Gulf R. R.—This company is contemplating the extension of its line from Murfreesboro to Hot Springs. A. M. Van Auken, Nashville, Ark., is Ch. Engr.

Texas.—Quanah, Dublin & Rockport R. R.—This company is planning an extension of its line from Rockport to San Marcos, by way of Yorktown.

Washington.—Seattle & Eastern Ry.—This company has been incorporated at $1,500,000 for the purpose of constructing a railroad from a point on the eastern shore of Lake Washington to Issaquah, a distance of 15 miles. R. S. Terhune, Boston Block, Seattle, is an incorporator.

Alberta.—Applications for charters for the construction of two important lines in western Canada have been made to Parliament. One is the Vancouver & Peace River Ry., which proposes building a line from Vancouver northeast to the Fraser River, through Alberta, across the Peace River, to Fort Vermillion. The other road is the Northern Territorial Ry., and will run from Fort Churchill, on Hudson Bay, to Lake Athabasca, thence west of the Peace River block, south through the Rocky Mountains to a point on the Pacific coast near Port Essington.

Alaska.—A bill for the construction of a national railway in Alaska has been introduced in the House of Representatives by Rep. Anderson of Minnesota at Washington. It provides that the President shall appoint an engineer to locate a line, beginning at Seward and terminating in the Matanuska coal field. The construction is to be in the hands of a commission appointed by the President, and to be known as the Alaska Railroad Commission.

ELECTRIC RAILWAYS.

Millers Falls, Mass.—The Massachusetts Northern Rys. Co., Greenfield, Mass., has taken over a majority of the capital stock of the Connecticut Valley, Athol & Orange Ry., and the Gardner, Westminster & Fitchburg Street R. R. and contemplates the construction of a line from Millers Falls to Orange; also an extension from Baldwinsville to Winchendon, which will give a through line from Boston to Greenfield and will allow through express service.

Buffalo, N. Y.—The Buffalo & Williamsville Electric Ry. Co. and the Buffalo & Depew Ry. Co., and the Buffalo, Genesee & Rochester Ry. Co. have been consolidated. A line will be built between Buffalo and Rochester, it is reported.

Coraopolis, Pa.—Application has been made to the County Commissioners for a franchise over one and a half miles of the Stoops Ferry Road. This is a part of a proposed line connecting Coraopolis and Woodlawn, four miles of which will be laid over a private right-of-way. E. C. Dithrich, Coraopolis, is interested. I. W. Arras is Engr.

Koppel, Pa.—A charter has been granted and a franchise will be applied for in the near future by the Ellwood City & Koppel Street Ry. Co., for a line from Koppel to Ellwood City. The incorporators are H. K. Gregory, of New Castle, Pa., Pres.; W. J. Coursin, of McKeesport and T. A. Wilson, R. A. Todd and Frederick C. Johnson, of Ellwood.

Richmond, Va.—Application has been made by the Richmond & Kensico Ry. Co., for a franchise to build a 2½-mile extension. C. Sims-Bailey, 1130 Mutual Bldg., Richmond, is Ch. Engr. and Gen. Mgr.

Greensboro, N. C.—A plan to build a railway connecting Greensboro, Saxapahaw, Chapel Hill and Durham is being considered by the Piedmont Traction Co., of Charlotte, N. C.

***Macon, Ga.**—The Macon Ry. & Light Co. has awarded a contract to the HALL-PARKER CONSTRUCTION CO. for the construction of a 3-mile extension.

Columbiana, Ohio.—Press reports state that the Youngstown & Southern Ry. Co. is planning to build a railway from Columbiana through New Waterford to East Palestine about ten miles. Work will probably be started in the spring, George Tod, Terminal Bldg., East Front St., Youngstown, Ohio, is Ch. Engr.

Columbus, Ohio.—A new electric line is proposed by the Columbus, Urbana & Western Electric Ry. Co. to run from Columbus, through Delaware, Union, Hardin and Hancock Counties to Findlay, making a connection with the Toledo, Bowling Green & Southern Ry. Permission to issue additional stock has been asked. L. P. Stephens, Cincinnati, is Pres. and Gen. Mgr. The company also proposes to build an extension of 35 miles from Wapakoneta to Kenton and to purchase the present line of the Wapakoneta & Kenton Traction Co., it is reported.

Massillon, Ohio.—A route is being selected for a proposed railway to connect Massillon, Wooster and Mansfield. by the Massillon, Wooster & Mansfield R. R. Co. W. E. N. Hemperly, A. J. Spaidnagle and W. A. Schuster are interested. H. McC. Yost is City Engr.

Gary, Ind.—An ordinance has been passed by the Council at Gary granting the Chicago, Indianapolis & Meridian Interurban Ry. Co. a franchise to build a line between Gary and Valparaiso. John A, Shafer, of Indianapolis, is Pres.

Bradford, Ill.—A 5-mile extension is contemplated by the Northern Illinois Electric Ry. Co. The line in operation, terminating in Bradford, will be continued to Newburg. J. J. Burns, 705 Isabella Bldg., Chicago, Ill.

Springfield, Ill.—The Perry County Interurban Ry. Co. has been incorporated and will build a railway across Perry County, probably, passing through Pinckneyville and Duquoin. The incorporators and board of directors are: G. W. McIntyre and F. A. Spitznagel, Jr., both of Springfield, Ill.; Isaac Black, Duluth, Minn.; A. C. Sprague, Dubois, Ill.; William Roessler, St. Paul, and John Nelock, Springfield, Ill. The offices are at Springfield.

Johnson City, Ill.—The Johnson City Connecting Ry. Co. has been incorporated in Illinois to build an interurban railway in Williamson County. The offices are at East St. Louis. E. J. Pearson and T. L. Phillips, St. Louis, Mo.; L. O. Whitnell, H. L. Browning and T. E. Gillespie, East St. Louis, Ill., are the incorporators.

Decatur, Ill.—The Decatur-Pana Southern Ry. Co. has been chartered in Illinois to build an electric railway from Decatur to Pana by way of Macon, Meweaqua and Assumption. H. S. Ashcraft, J. W. Lockett, Howard G. Hodgkins and John H. Martin, all of Chicago, Ill., are the incorporators.

Des Moines, Iowa.—The Fort Dodge, Des Moines & Southern Ry. Co. is reported to have purchased the abandoned Newton & Northwestern R. R. and proposes to equip it for electrical operation. Homer Loring, 64 Devonshire St., Boston, Mass., is Pres.

Manhattan, Kan.—Press reports state that the Manhattan City & Interurban Ry. Co. will build, within the next six weeks, 16 miles of new track. Four bridges will be built. T. C. Lamont, 216 Yuma St., Manhattan, is Ch. Engr.

Jefferson City, Mo.—A charter has been granted to the Grandview R. R. Co. by the Secretary of State at Jefferson City. It is the intention of the company to build a line 19 miles long, starting at the southern limits of Jefferson City continuing through the southern and western sections of the county to a point near the Olive St. road. The directors are Frederick Herkert, Sr., Pres. of the St. Louis Trunk Hardware Co.; Frederick Herkert, Jr., H. E. White, George H. Martin and N. S. Wood.

Corpus Christi, Tex.—Among contemplated improvements to be made by the Corpus Christi Street & Interurban Ry. Co. is a 2-mile extension into the section known as the south bluff. This line will ultimately be extended to the Alta Vista Hotel.

Marlin, Tex.—The Trinity Valley Traction Co., will soon be formulated at Dallas, Tex., within the next few weeks. A line connecting Marlin, Temple, Austin, and San Antonio is projected. J. V. Watkins, Dallas, is Pres.

Seattle, Wash.—Plans for a municipal street car line, extending from Third Ave. and Stewart St. to Salmon Bay, have been approved by the Board of Public Works.

Edmonds, Wash.—Construction work will be started, within 60 days, on the 4-mile railway between Edmonds and Seattle Heights by the Edmonds Electric Co., Cobb Bldg., Edmonds. A power-house will be built at Edmonds. John Appleton, Seattle, is Pres.

Quincy, Cal.—Articles of incorporation have been filed by the California-Plumas Ry. Co. The company will build a railway from a point on the Western Pacific Ry. Co. on the east branch of the Feather River through Indian Valley to Nevis. H. C. Flournoy, Quincy, Cal., is interested.

Fresno, Cal.—The Pacific Light & Power Co. will build a railway to Big Creek. Two routes are being considered, one by way of Friant, and the other by way of Little Dry Creek to connect with the Southern Pacific at Fresno copper mine. The cost is estimated at $1,000,000. C. A. Luckenbach, Los Angeles, is Mgr. of Construction.

Riverside, Cal.—A franchise has been granted to the Pacific Electric Ry. Co. to construct and operate a double-track railway on Magnolia Ave., from Main and 14th St. to Arlington Ave. J. McMillan, Sixth and Main Sts., Los Angeles, is Gen. Mgr.

San Fernando, Cal.—E. D. Goode, of Glendale, Cal., and C. P. Grogan and T. Miller, of San Fernando, are projecting an electric railway for San Fernando to be built under the direction of the Mission Land Co.

San Francisco, Cal.—See item under Miscellaneous Contracts—Street Cars, San Francisco, Cal.

Stockton, Cal.—The Tidewater & Southern Ry. has made application to the City Council for a franchise to construct a railroad from Stockton to Modesto and Turlock, Cal.

Woodland, Cal.—An ordinance grant- the right-of-way to the West Side Electric R. R. Co. over the public roads covered by the surveys, has been adopted by the supervisors.

Edmonton, Alta—The Edmonton Radial Ry. Co. will make extended improvements during the coming year. A double-track extension will be built on Spruce Ave., another on the high level bridge and a line will be built on 24th St. About $275,200 will be expended for track equipment, and, it is reported, a total of $596,000 will be used.

LIGHT AND POWER PLANTS.

(**Denotes that this work is advertised in Engineering News.*)

Rutland, Vt.—Application has been made by the Clarendon Power Co. to the Public Service Commission for permission to increase its stock, and issue bonds for the purpose of developing a hydroelectric power plant to furnish electricity to adjacent towns.

Boston, Mass.—Bids will be received until Jan. 24, by the Supply Department for 11,000 gas mantle lamps complete with single burner. J. Edward Mullen is Supt. Dept. Supplies. The bids received on Oct. 18 were noted Oct. 26. No award was made.

***New York, N. Y.**—The contract for an extension of the underground fire alarm telegraph system in the Boroughs of Manhattan and the Bronx has been awarded to the WATERBURY CO., 60 South St., at $6,200.

Bids will be reecived by the Park Board at the office of the Department of Parks, Arsenal Bldg., Fifth Ave. and 64th St., Borough of Manhattan, until Jan. 4, for furnishing and erecting heating, electric wiring, etc., in addition H of the Metropolitan Museum of Art, on Fifth Ave., opposite East 84th St. Bids will be compared and the contract awarded at a lump or aggregate sum. Plans may be seen at the office of the Department of Parks. Charles B. Stover is Pres.; Thomas J. Higgins, Michael J. Kennedy, Walter G. Eliot are the Comrs. of Parks.

Bids wil be received by the President of the Board of Trustees, Staff Room, Department of Bellevue and Allied Hospitals, 26th St. and First Ave., Borough of Manhattan, Dec. 28, for the reconstruction of the electric light system at the main building and overhauling of the same at the ambulance building, and power house and laundry building of Harlem Hospital, 136th to 137th Sts. Blank forms may be obtained at the office of the Contract Clerk, 400 East 29th St., Borough of Manhattan. John W. Brannan is Pres. Bd. of Trustees, Bellevue and Allied Hospitals.

Bids will be received by the Commissioners of Bridges, Department of Bridges, 13-21 Park Row, Borough of Manhattan, until 2 p. m., Dec. 28, for furnishing and installing electrical feeder cables on the westerly track of the upper deck of the Manhattan Bridge. Blank forms and specifications may be obtained at the office of the Department of Bridges. Arthur J. O'Keeffe is Comr.

Bids will be received by the Commissioner of Water Supply, Gas and Electricity, Department of Water Supply, Gas and Electricity, Room 1904, 13-21 Park Row, Borough of Manhattan, until 2 p. m., Dec. 29, for furnishing, installing and maintaining 660 gas regulators, from Jan. 1, 1912, to Dec. 31, 1912, inclusive. For furnishing gas regulators in public buildings in the boroughs of Manhattan and the Bronx. For

furnishing steam heat for heating or power purposes to certain public buildings from Jan. 1, 1912, to Dec. 31, 1912, inclusive. For furnishing steam to public buildings in the boroughs of Manhattan and the Bronx. For furnishing, installing, maintaining and reserving, for the use of the high pressure fire service all apparatus and equipment necessary for generating and transmitting 3,250 KW. 6,600 volt, electric power, and furnishing and delivering this power, under the terms of this contract, from Jan. 1, 1912, to Dec. 31, 1912, inclusive, at the high pressure fire service pumping stations at Oliver and South Sts., and at Gansevoort and West Sts. For furnishing gas for and to the public lamps on the streets, supplying gas, etc., for new lamps when required; for making certain repairs to lamp-posts and for furnishing gas to public buildings from Jan. 1, 1912, to Dec. 31, 1912, inclusive. For lighting streets, avenues, public buildings, parks and public places in Manhattan, the Bronx, Queens and Richmond. For furnishing gas lamps, etc., on streets and so on, and for connecting, lighting, extinguishing, cleaning, repairing and maintaining the same, and also lamps belonging to the city; supplying new lamps when required and for furnishing burners and appliances for improved system of lighting on the streets, avenues, parks and public places, from Jan. 1, 1912, to Dec. 31, 1912, inclusive. For furnishing gas lamps, etc., on the streets and so on in the four boroughs of the City of New York. For furnishing naphtha or similar illuminating material for the public lamps using same, and for furnishing, lighting, extinguishing, cleaning, repairing and maintaining such lamps; supplying naphtha, etc., for new lamps; for furnishing new lamps as required; for furnishing or making certain repairs to lamp-posts, and for furnishing burners and appliances of improved system of lighting streets, avenues, parks and public places, from Jan. 1, 1912, to Dec. 31, 1912, inclusive. For furnishing naphtha, etc., and lighting streets, avenues, parks and public places in the boroughs of Manhattan and the Bronx. For furnishing and maintaining electric lamps for lighting streets, avenues, public buildings, parks and public places from Jan. 1, 1912, to Dec. 31, 1912, inclusive. For lighting streets, avenues, public buildings, parks and public places in the five boroughs of the City of New York; No. 1, Borough of Manhattan, No. 2, Borough of the Bronx; No. 3, boroughs of Manhattan and the Bronx; No. 4, Borough of Queens; No. 5, Borough of Richmond. For furnishing gas for and to the public lamps on the streets, supplying gas, etc., for new lamps when required, for making certain repairs to lamp-posts and for furnishing gas to public buildings, from Jan. 1, 1912, to Dec. 31, 1912, inclusive. For lighting streets, avenues, public buildings, parks and public places in the Borough of Brooklyn. For furnishing gas lamps, etc., on the streets, and so on, and for connecting, lighting, extinguishing, cleaning, repairing and maintaining the same, and also lamps belonging to the city, supplying new lamps when required, and for furnishing burners and appliances for improved system of lighting on the streets, avenues, parks and public places, from Jan. 1, 1912, to Dec. 31, 1912, inclusive. For furnishing gas lamps, etc., in the Borough of Brooklyn. For furnishing naphtha or similar illuminating material for the public lamps using same, and for furnishing, lighting, extinguishing, cleaning, repairing and maintaining such lamps, supplying naphtha, etc., for new lamps, for furnishing new lamps as required, for furnishing or making certain repairs to lamp-posts and for furnishing burners and appliances of improved system of lighting streets, avenues, parks and public places, from Jan. 1, 1912, to Dec. 31, 1912, inclusive. For furnishing naphtha, etc., and lighting streets, avenues, parks and public places in the Borough of Brooklyn. For furnishing and maintaining electric lamps for lighting streets, avenues, public buildings, parks and public places, from Jan. 1, 1912, to Dec. 31, 1912, inclusive. For lighting streets, avenues, public buildings, parks and public places, in the Borough of Brooklyn. For furnishing, installing, maintaining and reserving, for the use of the high pressure fire service, all apparatus and equipment necessary for generating and transmitting 1,830 KW. 6,600 volt, electric power, and furnishing and delivering this power, under the terms of this contract, from Jan. 1, 1912, to Dec. 31, 1912, both inclusive, at the high pressure fire service pumping stations at Furman and Joralemon Sts., and at Willoughby St. and Edwards St., For furnishing, putting in place and maintaining 225 gas regulators from Jan. 1, 1912, to Dec. 31, 1912, both inclusive. For furnishing gas regulators in public buildings in the borough of Brooklyn. Henry S. Thompson is Comr.

New York, N. Y.—Bids will be received at the Bureau of Yards and Docks, Navy Department, Washington, D. C., until 11 a. m., Jan. 13, for three 200-KW. motor generator sets and controlling panels to be installed at the Brooklyn navy yard. Specifications may be obtained at the bureau and at the office of the Commandant. R. C. Hollyday is Ch. of Bureau.

Sodus, N. Y.—The Northern Wayne Electric Light Co. has been granted a franchise to supply power in territory not covered by the Sodus Gas & Electric Light Co. in Sodus. The lines will be extended to Wallington, Alton, North Rose, Rose, Wolcott and Red Creek. A bond issue of $75,000 has been authorized by the Public Service Commission. Omar Curtiss, of Wolcott, is Pres.

Brockwayville, Pa.—The Universal Electric Mfg. Co. will build a plant here, it is stated. The cost will be in the neighborhood of $100,000.

Harrisburg, Pa.—The State Water Supply Commission has authorized the building of a dam across the Susquehanna River at Harrisburg. A loan for the purpose was voted some time ago. The water level will be raised five ft.

Hauto, Pa.—The directors of the Lehigh Coal & Navigation Co. have authorized the installation of a plant to generate electricity to supply towns in the vicinity, namely: Catasauqua, Hazleton, Shenandoah, Mahanoy City, Easton, Portland, Bangor, Slatington, Ashland, Tamaqua, Pottsville, Scranton, Wilkes-Barre, Allentown and Bethlehem. The plant will ultimately be of 100,000-KW. capacity, built in segments, the initial installation to be of 30,000 KW., which, with distribution lines and transforming stations, will cost, it is estimated, about $3,000,000. The plant and its business will be owned and operated by a subsidiary corporation to be known as the Lehigh Navigation Electric Co.

Mercer, Pa.—The Mercer County Electric Light & Heat Co. has been granted a franchise to build and operate an electric light plant.

✚Philadelphia, Pa.—A contract has been awarded by the N. B. Hafleigh Co. to THOMAS MERKEL for the construction of a brick power plant on Philip St., south of Cambria St. The cost is estimated at $5,000.

Pittston, Pa.—A new electric light company to be known as the Garden City Electric Co., has applied to the town council of West Pittston for a charter to erect suitable buildings in the town and place poles and wires.

Frederick, Md.—Frederick and Hagerstown capitalists have purchased control of the Hagerstown Ry. Co., operating an electric railway system in Washington County, and proposes to operate the system in conjunction with the Frederick R. R. line. James K. Hendricks is making surveys for the construction of a transmission system from Millville to Brunswick, Md. An auxiliary steam plant will be built by the Frederick Gas & Electric Co. at Millville to cost $100,000 to be completed by May 1, 1912.

Washington, D. C. — Bids were received as follows, Dec. 18, by the Commissioners of the District of Columbia for a heating and ventilating system in the James Ormond Wilson School: Standard Engineering Co., Washington, D. C., $23,900; Thomas C. Basshor Co., Baltimore, Md., $30,841; York Engineering Co, York, Pa., $26-100; John W. Danforth Co. Buffalo, N. Y., $25,750; L. B. Jacobs, Newark, Del., $30,147; Thompson Bros., Philedelphia, Pa., $24,890; W. G. Cornell Washington, D. C., $21,900; Crook-Kries Co., Baltimore, Md., $27,600; for lighting system in the same building, as follows: Strang Electric Co., Philadelphia, Pa., $4,134; Carroll Electric Co., Washington, D. C., $2,975; Central Electric Co., Baltimore, Md., $3,300; Capitol City Electric Co., Washington, D. C., $3,290; National Electrical Supply Co., Washington, D. C., $3,993.

✚Sisterville, W. Va.—The Sisterville Electric Light & Power Co., has awarded a contract to JOHN J. REA, Clarington, Ohio, to erect and equip an addition to its power plant. The equipment includes two engines of 1,000-HP. each and a switchboard.

✚Fort Dade, Fla.—A contract has been awarded to the E. KELLER CO., of Williamsport, Va., at $5,000, for the installation of new boilers in the electric light plant.

Winterhaven, Fla.—A franchise has been granted to W. F. Boyd for the installation of a plant and erection of transmission lines.

Piedmont, Ala.—See item under Water Supply—Irrigation.

✚New Orleans, La.—Bids were received Dec. 7 by the Sewerage and Water Board for the following equipment: One 6,000-KW. turbo generator; one 150-KW. rotary converter; one 5-panel switchboard, and two rotary-converter switchboard panels: Genehal Electric Co., Schenectady, N. Y., $69,440; ALLIS-CHALMERS CO., Milwaukee, Wis., $66.198 (awarded contract); Westinghouse Machine Co., East Pittsburgh, Pa., $73,907.

Knoxville, Tenn.—The Aluminum Co. of America, Mellon Bank Bldg., Pittsburgh, Pa., has purchased rights-of-way for a distance of 40 miles along the Little Tennessee River across the state line into North Carolina. It is reported that a dam and power plant will be built, where about 200,000 HP. will be developed.

✚Jackson, Tenn. — A contract has been awarded to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for a 1000-KW. generator, by the Jackson Ry. & Light Co. An expenditure of $30,000 will be made in all for extensions and improvements.

Parksville, Tenn.—The Eastern Tennessee Power Co. is considering a plan to build another dam farther up the Ocoee River to increase the available power to 60,000-HP. J. G. White & Co., 43 Exchange Place, New York, N. Y., are the Constr. Engrs.

Louisville, Ky.—The Board of Public Works is planning to encircle the City Hall with electric lights. The Board is also considering the placing of street electric light standards, cluster style, entirely around the building at Sixth and Jefferson Sts. Roger McGrath is Secy.

Toledo, Ohio.—Bids on the general contract for the construction of the proposed industrial power plant have been opened by a committee of the Toledo Factories Co. There were ten bids and seven were eliminated. A. Bentley & Sons, Toledo; J. D. Robinson & Co., Chicago, Ill., and the Leonard Construction Co., Chicago, Ill., submitted the bids being considered. Bids on heating, wiring and plumbing are being considered.

Woodsdale (Trenton post-office), **Ohio.**—A company has been formed for the purpose of utilizing the waters of the Big Miami River to develop electricity for lighting. A dam and generating plant will be built at an estimated cost of $547,620. The Russell Co., of Dayton, is interested.

Decatur, Ind.—The Ft. Wayne & Springfield Interurban Ry. Co. has ordered plans for the construction and equipment of a new cement power house.

Mooresville, Ind.—The Southwestern Traction Co., with offices in Indianapolis, will build a power-house in Mooresville in the spring. J. W. O'Hara and J. A. Davidson are directors.

Pontiac, Mich.—The State Railroad Commission has ben asked to approve a bond issue of $1,860,000 for several plants of the Commonwealth power system of which the Pontiac Power Co. is a part. It is stated that $36,000 will be expended by the Pontiac Power Co. for improvements. D. L. Kent, Leslie, Mich., is Mgr. and Supt.

Aurora, Ill. — The Wheaton & Du Page Light & Power Co. contemplates building a transmission line into North Aurora. Applications for franchises have been made in Batavia and Aurora Townships and North Aurora.

Williamsfield, Ill.—A franchise, to build and maintain for a period of 25 years an electric light plant, has been applied for by E. J. Le Hew, of Galesburg, Ill. The cost is estimated at $6,000.

✚Glidden, Iowa.—Bids were opened on Dec. 8 for a power and electric plant and awarded as follows: MURRAY IRON WORKS CO., of Burlington, Iowa, for 100-HP. Corliss engine, two 85-HP. boilers, feed pump and heater; FORT WAYNE ELECTRIC WORKS, of Fort Wayne, Ind., for generator, switchboard and regulator. The contracts for wiring, lamps, etc., have not been awarded. O. B. Moorhouse is City Clk.

Legrand, Iowa.—The installation of an electric-light plant is under consideration, it is stated.

Stanton, Neb.—The City Council has decided to build an addition to the present power house, and to purchase a 100-HP. steam engine and a 125-HP. steam boiler. C. A. Hickman, Engr., has been retained to prepare plans and specifications.

Gravette, Ark.—The question of building a municipal electric light plant and water-works, which will cost about $25,000, is in the hands of a commission elected by the Council composed of E. L. Chatfield, Ch.; J. F. Dorsettt, Secy., and G. A. Hughes. An engineer will be appointed subject to the approval of the Council. A. C. Veach is Mayor.

Galveston, Tex.—The Cities Service Co., of New York, N. Y., has purchased the Brush Electric Light & Power Co., of Galveston, Tex. Improvements are contemplated. Henry L. Doherty, 60 Wall St., New York, N. Y., is Pres.

Grand Saline, Tex.—The Municipal Electric Light plant here which was recently destroyed by fire will be rebuilt.

Houston, Tex.—The Transit Ice Co., has increased its capital stock $20,000 and will make improvements to its plant.

Kingfisher, Okla.—See item under Water Supply—Irrigation.

Oklahoma City, Okla.—An ornamental street lighting system for the downtown section of the business district is under consideration by the City Commissioners. Walter B. Moore is Secy. of the Chamber of Commerce.

Wagoner, Okla.—See item under Water Supply—Irrigation.

✚Walsenburg, Colo.—A contract has been awarded by the Southern Electric & Traction Co. for the construction of a power house to FOX & SMITH. The cost is estimated at $75,000.

Deming, N. Mex.—Bids will be asked in about 90 days for work in connection with the construction of the hydroelectric development on the east fork of Gila River, 65 miles north of here, where 5,600-HP. will be developed. H. B. Johnson and R. H. Boulnare of Silver City, N. Mex., are the owners.

✚Boise, Idaho.—A contract has been awarded to the IDAHO ELECTRIC SUPPLY CO., of Boise, at $14,103, for wiring the new State Capitol.

Edmonds, Wash.—See item under Electric Railways.

Bellingham, Wash.—The city officials have decided to install an auxiliary lighting plant in connection with the city power station. H. A. Whitney is City Engr.

North Yakima, Wash.—The Pacific Power & Light Co. has filed an application with the Board of County Commissioners for authority to build transmission lines within the city limits. H. R. Kingman, North Yakima, is Local Mgr.

Tacoma, Wash.—The Great Northern Ry. Co. is selecting a site for the erection of a dam to be from 200 to 300 ft. high and a right-of-way from Wenatchee up the Columbia River to Chelan. About 100,000 hydro-electric HP. will be developed. Robert Herzog, Engr., is in charge of the work.

Pasco, Wash.—A municipal lighting plant is being considered. H. Day Hanford, Engr., of Seattle, has been retained to prepare the plans.

Boca, Cal.—The Union Ice Co. is considering the installation of a power plant on the Truckee River. An expenditure of $1,500,000 will be made, it is stated.

Lathrop, Cal.—The Sierra & San Francisco Power Co. has been granted a franchise to build a transmission line.

✚Los Angeles, Cal.—A contract has been awarded to JOHN W. CATRON CO., 614 South Grand Ave., at $10,775 for the installation of the power plant and heating system in the Beverly Hills Hotel, being erected at Beverly Hills, for the Rodeo Land & Water Co. Elmer Grey, Wright & Callender Bldg., Los Angeles, is the Arch.

✚Los Angeles, Cal.—A contract has been awarded to FOULKES ELECTRICAL CO., Story Bldg., Los Angeles, Cal., at $20,350, for the electrical work in the I. N. Van Nuys office building at Seventh and Spring Sts.

Pasadena, Cal.—An expenditure of $21,000 will be made for conduits, equipment and line extensions of the city lighting system has been authorized by the City Council.

Porterville, Cal.—A petition has been filed at the office of the city clerk by E. I. Feemster, representing the Tulare County Power Co., for a 50-year franchise to build underground transmission lines.

Hot Springs, Cal.—An electric light plant is contemplated by the Pine Flat Co., which has recently been incorporated. G. E. and E. M. Alderson, of Los Angeles, are reported interested.

Red Bluff, Cal.—A power site has been secured at Mill Creek, near Red Bluff, by the Sierra Electric Power Co., which has recently been incorporated and a hydroelectric power plant will be built. Charles Gross and E. A. Herman, of Oakland, Cal., are interested, it is reported.

Redwood City Cal.—Plans are being considered for the installation of a new street-lighting system in the business district of the city.

✚Sacramenton, Cal. — A contract has been awarded to J. C. HOBRECHT, 1012 Tenth St., this city, by the Retail Merchants' Association for the installation of an electrolier street-lighting system on 40 blocks in the main section of the city.

San Diego, Cal.—Plans have been prepared for the installation of an ornamental street lighting system in the entire downtown district.

Santa Ana, Cal.—A committee has been appointed by the Board of City Trustees to take charge of the installation of a cluster street-lighting system in the business section of the city.

Kamloops, B. C.—The City Council has passed a by-law appropriating $300,000 for the Barrier River project, which includes the following dam and intake, including pipe, trench, locks and gates and terminals estimated to cost $57,550; power house, two 1,200-HP. turbines, two 600-KW. generators, $55,000; transmission lines, telephones, etc., 45 miles, $152,775, about 1¼ miles of 6-ft. woodstave pipe, $29,700. Herman & Burwell and Dutch & Maxfield, of Vancouver, B. C., are the Engrs.

BRIDGES.

(*✚Denotes a contract awarded.*)

Lynn, Mass.—Plans for the proposed bridge across the Saugus River at Fox Hill have been approved by the Massachusetts Harbor and Land Commissioners. Estimated cost, $150,000. Geo. I. Leland is City Engr. Noted Nov. 16.

Woonsocket, R. I.—We are officially advised that the proposed steel and concrete bridge at Bernon St. will not be constructed before spring. Estimated cost, $36,000. Frank H. Mills is City Engr. Noted Dec. 7.

***Tarrytown, N. Y.**—We are officially advised that bids will be received about Jan. 10 for constructing a bridge over Pocantico River at Tarrytown. Estimated cost, $15,000. The Wulff Engineering Co. is in charge of the engineering work. Noted Dec. 14.

Atlantic City, N. J.—We are officially advised that plans and specifications have been completed for the steel bridge to be constructed at Albany Ave. The Scofield Engineering Co., Arcade Bldg., Philadelphia, Pa., is Consult. Engr.

Allentown, Pa.—We are officially advised that the Allentown & South Allentown Bridge Co. will construct a bridge between the 3d and 12th wards to be known as the South Eighth St. viaduct. The bridge will be of concrete and cost about $425,000. It will be 2,000 ft. long, over all, or 1,800 ft. between abutments. The distance from the top of the rail to the

surface of the water will be 125 ft. Provision is being made for sidewalk, highway and double-track trolley traffic. Plans and specifications will be ready about May 1, when bids will probably be advertised. G. H. Davis, 1 Madison Ave., New York, is Consult. Engr. Noted Dec. 14.

Allentown, Pa.—Bids will be received until 10.30 a. m., Dec. 26, by the Commissioners of Lehigh County for constructing a reinforced-concrete arch bridge with 32-ft. span, 20 ft. wide, with four wing walls, over Mill Creek at Hollenback's Mill. J. S. Troxell is Clk. of Bd.

Cannonsburg, Pa.—Bids will be received until 1 p. m., Dec. 22, by the Supervisors of Chartiers Township, at the office of the Citizens' Trust Co., Cannonsburg, for furnishing 3,400 cu. yds. of crushed stone and for constructing a concrete bridge over Allisons Run above McGovern. J. M. Chestnut is Chn. of Supervs.

Baltimore, Md.—Press reports state that H. R. Pratt, Ch. Engr. of the Western Maryland Co., is having plans prepared for supplanting 15 bridges on the main line between Cumberland and Baltimore with new and heavier structures. Bids for construction will probably soon be asked.

Amherst, Va.—Bids will be received until noon, Jan. 1, by the Clerk, Board of Supervisors of Amherst County, for constructing a 70-ft. span steel bridge with concrete substructure over Harris Creek, and a steel bridge of two 80-ft. spans, with concrete substructure, over the Pedlar River. Plans and specifications are on file with the clerk of the Circuit Court, at Amherst, or may be obtained from the Childrey, Sunday Co., Richmond. P. St. J. Wilson, Richmond, is State Highway Comr.

Washington, D. C.—J. C. J. Bailey, Engr. of Bridges for the District of Columbia, is supervising the drawing of plans for the Q St. bridge. The structure will extend from Q St., Georgetown, to Q St., Washington, and is estimated to cost $275,000. Noted Nov. 30.

+Jacksonville, Fla.—Bids for constructing a reinforced-concrete bridge over Goodby's Lake on the John Anderson Highway, were received Dec. 6, by the County Commissioners, as follows: W. C. KIERMAN & CO., $14,200 (awarded contract); Southern Bridge Co., $15,705; Massillon Bridge & Construction Co., Jacksonville, $17,260; Owega Bridge Co., $17,703; Hard & Worm Co., Atlanta, Ga., $18,080; Logan Concrete and Engineering Co., $20,560; Gardner & Pease, Philadelphia, $21,078. Noted Nov. 30.

+Baton Rouge, La.—We are officially advised that bids for constructing a bridge over Comite River on the Greenwall Springs Road were received Dec. 12 by F. A. Woods, Secy. Police Jury, of East Baton Rouge, as follows: (a) reinforced concrete; (b) steel: C. D. Stewart, Baton Rouge, (a) $7,250; Vincennes Bridge Co., Vincennes, Ind., (a) $6,839, (b) $5,392; M. S. HASIE, JR., Dallas, Tex., (a) $5,800, (b) $5,200 (awarded contract). Noted Dec. 7.

Chattanooga, Tenn.—Wilbur J. Watson, Design. Engr., is preparing plans for a viaduct on McCallie Ave. Robert Hooke is City Engr.

+Carthage, Ohio.—Press reports state that the contract for constructing a bridge over Mill Creek at Second Ave. has been awarded by the County Commissioners to T. J. McKIM, Carthage, at $12,115.

Columbus, Ohio.—The Commissioners of Franklin County are considering a bond issue of $60,000 for repairing and replacing 18 bridges throughout the county.

Lima, Ohio.—The Lima Cut Stone Co., Lima, Ohio, submitted the lowest bid received for the construction of a bridge in Woodlawn Cemetery. The bid was $6,700. Noted Nov. 2.

Richmond, Ind.—John Mueller, County Bridge Engr., is preparing plans and specifications for a bridge over Whitewater River at Richmond. Estimated cost, $100,000. Noted Sept. 21.

Atkinson, Ill.—Bids will be received until 10 a. m., Dec. 21, by Theodore Milar, Town Clk., for constructing a 140-ft. steel viaduct to be built on the highway between the towns of Atkinson and Alba, Henry County. T. Milar, Town Clk., Atkinson.

Chicago, Ill.—We are officially advised that plans and specifications have been completed for a bascule bridge over the north branch of the Chicago River at Indiana St., estimated to cost $250,000, and for a bascule bridge over the south fork of the south branch of the Chicago River at 35th St., estimated to cost $260,000. It is probable that bids for the construction of these two bridges will soon be asked.

Plans for a bascule bridge over the north branch of the Chicago River at Chicago Ave., estimated to cost $250,000, are practically completed, and will be ready for submission to bidders about Feb. 1.

Plans for a bascule bridge over the Calumet River at 92d St., estimated to cost $300,000, are well under way and will be ready for bidders about April 1.

Plans are being prepared for a bridge over the south branch of the Chicago River at Lake St., estimated to cost $400,000, and will be completed about May 1.

Fixed spans over the north branch of the Chicago River at North Central Park Ave. and North 48th Ave., each estimated to cost $15,000, will probably be built next year. Bids will be advertised for about May 1.

The construction of a new bridge over the south branch of the Chicago River at Twelfth St., estimated to cost $480,000, and a new bridge over the Calumet River at Indiana Ave., estimated to cost $200,000, is contemplated, and it is expected that bids for these two bridges will be advertised for about July 1. Thomas J. Pihlfeldt is Engr. in charge of Bridges and John Ericson is City Engr.

Pecatonica, Ill.—The city is considering the construction of a bridge over the Pecatonica River. Estimated cost, $25,000.

Havana, Ill.—Bids will be received until 1 p. m., Jan. 3, by W. J. Meyer, Chn. Bridge Com., for cleaning, painting, placing new steel and wood stringers, wood floor beams, and wood floor on the Illinois River bridge at Havana. There are two fixed spans, each about 150 ft. long, to be cleaned, painted, supplied with steel stringers and the wood floor relaid, and one movable span, about 288 ft. long, to be cleaned, painted and supplied with creosoted timber floor beams and stringers and white oak, non-creosoted floor. Concrete joists rests to be built on the four piers and two 15-in. I-beams, placed to stiffen the drum of the movable span.

Manhattan, Kan.—See item under Electric Railways.

Hastings, Neb.—Bids will be received until Dec. 23 by the Board of Supervisors of Hastings County for the construction of county bridges during the year 1912.

+Warrensburg, Mo.—The contract for constructing 31 steel bridges was awarded Dec. 12 by the Commissioners of Johnson County to the A. E. SHORTHILL CO., Marshalltown, Iowa, at $12,989. Blackwater Drainage District No. 1 awarded a contract to the same firm, at $11,900 for twelve steel bridges. Noted Dec. 7.

Salt Lake City, Utah.—Bids will be received until Dec. 29 by the Board of Public Works, H. G. McMillan, Chn., for constructing a steel bridge with concrete abutments over the Jordan River at North Ninth S. Estimated cost, $5,000.

Riparia, Wash.—Press reports state that the Oregon-Washington R. R. & Navigation Co. is considering the construction of a bridge over Snake River, ten miles below Riparia. Estimated cost, $750,000. J. R. Holman, Seattle, Wash., is Asst. Mgr., In Charge of Engineering.

+Marshfield, Ore.—A contract has been awarded to LABBE & PETERSON, Marshfield, to make borings for the foundations of eleven bridges, to be erected over various streams between Eugene and the tunnel on the Coos Bay Road.

+Oregon City, Ore.—A contract for constructing a bridge at Sunnyside Gulch has been awarded by the County Court to the COAST BRIDGE CO., Portland, at $17,965.

Stayton, Ore.—The Board of Commissioners of Marion County, Salem, Ore., is considering the construction of a bridge across the Santiam River at West Stayton. Estimated cost, $60,000.

Bakersfield, Cal.—The County Supervisors have authorized the County Surveyor to proceed with the construction of the reinforced-concrete bridge across the Kern River. The bridge will be built by the Young Construction Co., Union Trust Bldg., Los Angeles. The structure will be a Thomas 3-hinged concrete arch bridge. It will cost $75,000 and will be completed within three or four months. The structure will be 1,015 ft. long, with ten spans, one of which will be 123 ft. long, two 108 ft., two 100 ft., two 88 ft., two 80 ft., and one 75 ft. It will be 24 ft. wide and for protection along the sides, concrete posts connected by ornamental iron chains will be provided.

Merced, Cal.—Bids will be received until 10 a. m., Jan. 9, by the Board of Supervisors for the construction of a concrete and wooden bridge 58 ft. long, over South Slough on the Merced and Dugan Ranch Road in Road District No. 3, about three miles west of the city, and a wooden bridge over Dry Creek on the Lower Lagrange Road in Road District No. 1, in accordance with plans and specifications on file with P. J. Thornton, Clk. Bd.

+Quebec, Que.—A contract has been awarded to J. S. METCALF, Montreal, Que., at $75,000, for removing the present bridge over the Richelieu River in Quebec, and replacing it with a modern structure.

BUILDINGS.

(**Denotes that this work is advertised in Engineering News.*)

Boston, Mass.—A brick block will be built at Howard and Gleason Sts., Dorchester District, for Thomas J. Griffin, 153 Harvard St. The cost will be about $40,000.

+Boston, Mass.—The contract for the construction of the Rogen Walcott elementary school building has been awarded the JOHN F. GRIFFIN CO. at $41,575 Other bidders were: J. E. Locatelli Co., $47,239; McGahey & O'Connor, $47,667; A. Varnerin Co., $51,000; J. W. Duff, $56,168; Chas. Logue is Chn. Schoolhouse Comn.

Cambridge, Mass.—A large apartment house will be built at Lennaean St. and Washington Ave. for the Washington Trust Co.

+Lowell, Mass.—The contract for the French-American Orphanage to be built on Pawtucket St., has been awarded to JOHN MORIN. The cost will be about $50,000.

+Hartford, Conn.—Subcontracts have been awarded by McINTYRE & AHERN, general contractors for the dwelling of Morgan G. Buckley, Jr., on Prospect Ave.; concrete work to CURTISS & DEAN, 36 Pearl St.; mason work to J. M. WOOLEY, and electrical work to the BALDWIN-STEWART ELECTRIC CO., all of Hartford. A. Raymond Ellis is the Arch., and the building will be of brick, 37 x 64 ft., two stories high and furnished in hardware throughout. Noted Sept. 14 and Nov. 23.

+Hartford, Conn. — The following subcontracts have been awarded by the WELLS BROS. CO., New York, general contractors for the 10-story bank and office building at Main and Asylum Sts., for the Hartford National Bank: Steam heating system, BAKER, SMITH & CO.; electrical work, HENRY ALEXANDER; plumbing, J. MILLER & CO.; furring and terra cotta partitions, F. G. EBSARY; concrete floors, CLINTON FIREPROOFING CO.; painting, W. P. NELSON & CO., all of New York City; plain and ornamental plastering, ROBERT GALLAGHER, Boston, Mass. The building is 57 x 100 ft. and the plans were drawn by Donn Barber, New York City. Noted June 22, July 13 and Aug. 24.

+New Haven, Conn.—Contracts for a been formed to build a hotel, the committee in charge of the matter consists of F. H. Alford, Chn., 25 Court St.; W. H. Cadwell, W. L. Hatch, F. G. Vibberts and J. R. Andrews.

+New Haven, Conn.—The contract has been awarded to the BERLIN CONSTRUCTION CO., Berlin, Conn., for the steel frame for the 10-story store and office building on Church St., for C. W. Murdock. Brown & Von Beren, 856 Chapel St., New Haven, are the Archs. Noted Oct. 12 and Nov. 30.

+New Haven, Conn.—Contracts for a brick dwelling on Prospect St. for Franklin Farrel, Jr., have awarded to B. N. BLATCHLEY, mason work; WILLIAM RITCHIE CO., carpenter work; BUCKINGHAM-ROUTH CO., plumbing; MENZIES & MENZIES, heating. The house will be of brick, 2½ stories high, 45 x 92 ft., with hardwood floors and finish, and tile roof. Noted Sept. 14.

+New Haven, Conn.—The SPERRY & TREAT CO., New Haven, general contractors for the Wright Memorial Dormitory at Yale University, have awarded subcontracts as follows: Carpenter work, J. A. CHURCH CO., New Haven; steam heating, WALKER & CHAMBERS, 222 East 41st St., New York; plumbing, MENZIES & MENZIES, New Haven; electrical work, E. C. LEWIS, 121 Federal St., New York. The building will be 36 x 152 ft., five stories high with an L 42 x 80 ft. Delano & Aldrich, 4 East 39th St., New York, N. Y., are the Archs. Noted March 16, July 27, Oct. 12.

Willimantic, Conn.—A Y. M. C. A. building is planned for this place. It will be about 50 x 150 ft., of brick, three or four stories high and heated by steam. E. Frank Bugbee is Chn. of the building committee. Palmer & Townsend, of New Haven and Meriden, Conn., are the Archs.

+Winsted, Conn.—The folowing contracts have been awarded by the TORRINGTON BUILDING CO., Torrington, Conn., general contractors for the building of Clifton Lodge, No. 30, I. O. O. F., on Main St.; steel work to the BERLIN CONSTRUCTION CO., Berlin, Conn.; cut stone, NEW ENGLAND CUT STONE CO., New Haven, Conn.; asbestos roofing, THE H. W. JOHNS-MANVILLE CO., New York City. E. E. Benedict, 51 Leavenworth St., Waterbury, Conn., is the Arch. Noted Sept. 14.

+Buffalo, N. Y.—The plans for the $600,000 Catholic Cathedral at Delaware Ave. and West Utica St., have been filed with the Bureau of Buildings. MOSIER & SUMMERS, of Buffalo, hold the general contract.

North Tonawanda, N. Y.—James Rand of Boston, announces that he proposes to erect a concrete building for offices and stores.

Jamaica, (L. I.) N. Y.—James Butler, 390 Washington St., New York, N. Y., will build a wholesale and retail grocery store at Fulton St. and Twombley Place.

New York, N. Y.—Plans are being prepared for the construction of a hospital for horses and other animals, according to the announcement of the New York Women's League for Animals, 325 Lafayette St.

New York, N. Y.—Plans have been completed and bids will soon be received by W. Haefeli, 17 Madison Ave., for the construction of a 12-story apartment house at Cathedral Parkway. The Lycelm Building Co., 65 Broadway, is the owner.

Contracts will soon be awarded by the London Construction Co., 149 Broadway, for the construdtion of a 6-story apartment house on Riverside Drive, at 129th St. Plans have been prepared by Gronenberg & Leuhtag, 7 West 22d St. The cost is about $45,000.

Plans are being prepared by Nast & Springsteen, Archs., 21 West 45th St., for the construction of a 6-story apartment at St. Nicholas Ave. and 172d St., for the Paterno & Son Construction Co. The cost will be $150,000.

Plans are being prepared by Rouse & Goldstone, Archs., 38 West 32d St., for the construction of a 12-story apartment house. The Montana Realty Co., 135 Broadway, is the owner.

Plans have been filed by Schwartz & Gross, Archs., 347 Fifth Ave., for the construction of a 6-story apartment house at 142d St. and Convent Ave. for the Benclane Construction Co. The cost will be about $200,000.

Plans have been completed by H. A. Smith and W. P. Miller, 1181 Broadway, for the construction of a 6-story tenement at 47th St., west of Tenth Ave. The Hartley Open Stair Co., 20 Broad St., is the owner. The estimated cost is $120,000.

New York, N. Y.—Bids will be received by the Department of Parks, Fifth Ave. and 64th St., until Dec. 28, for all labor and materials required for the excavation, demolition, shoring and sheath-piling, preparatory to the erection of an addition to the American Museum of Natural History in Manhattan Sq.

Plans have been completed by Gaetan Ajello, Arch., 1 West 34th St., for the erection of a 9-story apartment house at 227-229 West 109th St. The Paterno Construction Co., 440 Riverside Drive, is the owner.

A. Santine, 411 East 149th St., owner, is receiving bids on the general contract for the 8-story addition to the storage building at 441 and 445 East 149th St., to cost $128,000. C. F. Lohse, 563 Eagle Ave., prepared plans.

Construction work will soon be started by the George Jacobs Construction Co., 1999 Morris Ave., on a 3-story brick stable at 171st St. west of Amsterdam Ave. Plans have been prepared by John Houser, Arch., 360 West 125th St. The estimated cost is $138,000.

New Berlin, N. Y.—A public school building will be erected here from plans of J. Mills Platt, Rochester, N. Y. C. B. Dakin is Pres. School Bd.

Sag Harbor, (L. I.) N. Y.—Henry G. Ham, proprietor of the Hotel Nassau, has purchased a site and ordered architects to prepare plans for an 80-room summer hotel here.

Southampton, (L. I.) N. Y.—Plans have been completed by Hiss & Weeks, Archs., 1125 Broadway, New York, N. Y., for the construction of the proposed 2½-story dwelling for Mrs. Alfred Hoyt, 934 Fifth Ave., New York. The probable cost is $100,000.

Syracuse, N. Y.—Charles E. Colton, Arch., is preparing plans for an office building which George L. Barnard will erect at 443 South Warren St. The specifications call for a foundation strong enough to carry a structure of ten stories.

Red Bank, N. J.—Mrs. Catherine L. Collien will construct a hospital here to cost about $60,000.

Oakland, Pa.—Rutan & Russell, Archs., have plans in progress for a 4-story brick and terra cotta fireproof office and mercantile building to be constructed at Forbe St. and Pennant way, Oakland, for James H. Matthews & Co. The cost will be $50,000.

+Pittsburgh, Pa.—The contract has been awarded to the CUTHBERT BROS. for the erection of the hotel, apartment and office building to be built at Federal and Reliance Sts., Northside, for R. H. Boggs. The building will be three stories high and will contain 12 apartments, offices and seven storerooms.

Altoona, Pa.—Bids will be received until Dec. 27 by N. A. Bobrecht, 125 Third Ave., Altoona, Secy. Bldg. Com., for the construction of a church on Grant Ave. and East St.

Washington, D. C.—The Sibley Hospital will erect new buildings at a cost of about $125,000. William J. Palmer, 523 Ninth St., Washington, has drawn the plans.

Lake Charles, La.—Bids will be received by the Police Jury until Jan. 9 for the construction of a 2-story concrete and brick jail. Favrot & Livandais, 839 Gravien St., New Orleans, are the Archs.

Louisville, Ky.—M. S. Hutchinson will erect an apartment house to cost $60,000, at Third and Lee Sts. Plans have not yet been prepared.

Lexington, Ky.—A model school building to cost $30,000 will be erected in Lexington, funds having been raised by public subscription. Apply to the Secretary School Board, Lexington, Ky., for plans.

Columbus, Ohio.—The Green-Joyce Co., a wholesale dry goods concern, has purchased a site on Front St. upon which it will erect a large structure.

Portsmouth, Ohio.—Plans have been prepared by Richards, McCarty & Bulford, Archs., Columbus, Ohio, for a 3-story bank building to be erected by the Central National Bank.

Marietta, Ohio.—Bids will be received until Jan. 1 for constructing a 2-story high school. Plans by Wilbur I. Mills, McCuno Bldg., Columbus. The estimated cost is $75,000.

Youngstown, Ohio.—Plans are being prepared by Miller & Ford, Youngstown, for the construction of a 2-story brick and stone building for Pasquale Schettino.

Crown Point, Ind.—Bids will be received by the County Board of Commissioners, until Jan. 3 for the construction of an almshouse. Plans were prepared by Beers & Beers, Archs., 168 Michigan Ave., Chicago, Ill.

Chicago, Ill.—A stadium, which will seat more than 100,000, will be constructed here, according to an announcement by the South Park Commission.

Madison, Wis.—Arthur H. Peabody, Superv. Arch., University of Wisconsin, is preparing plans and specifications for the following buildings authorized by the Board of Regents. Agricultural chemistry, $90,000; home economics and university extension, $150,000; woman's dormitory, $90,000; biology building, $200,000; chemistry addition, $76,000; new library wing, $5,000; horticultural building, $57,000; gymnasium annex, $50,000; model building, $150,000.

The Evangelical English Lutheran Congregation of St. John has purchased a site at University Ave. and Lake St. for the proposed new $50,000 adefice, work upon which will be commenced in the spring.

+Milwaukee, Wis.—The Special Committee of the Milwaukee County Board of Supervisors awarded the general contract for the erection of unit 6 of the Milwaukee County Agricultural and Domestic Science School, Wauwatosa, to RIESEN & RIESEN, University Bldg., Milwaukee, at $17,973. Contracts for the structural work on the other five units were awarded to the same company. Total, $188,000. A. A. Johnson is Supt.

Plans are being prepared for an 8-story Chinese joss house and manufacturing, store and office building for Charles Toy, West Water St., Milwaukee, to be erected on Second St., near Grand Ave., in the spring of 1912.

Racine, Wis.—Rapp & Rapp, Archs., 69 Wisconsin St., Chicago, Ill., have been commissioned to prepare plans for a $70,000 banking house for the David G. Janes Co., Ribonson Bldg., Racine, Wis. It will be six stories high, of pressed brick and stone construction. Bids will be received after Jan. 1.

Northwood, Iowa.—Bids will be received by Kirby T. Snyder, Arch., 92 South Seventh St., until Jan. 1, for a church for the Trinity Norwegian Lutheran Congregation.

+Medford, Minn.—The contract for the general construction of the 2-story pressed brick and cut stone school building to be built here has been awarded to KINGSLEY & PAYANT, Faribault, Minn. Albon & Hausler, Chamber of Commerce Bldg., St. Paul, Minn., are the Archs. Cost, $20,000.

St. Paul, Minn.—Bids are being taken by Mark Fitzpatrick, Arch., 17 West Ninth St., for the construction of a pressed brick and cut stone theater to be built by the Starland Amusement Co., Winnipeg, Man., at Wabasha and Eighth Sts. It will have steel columns and beams, marble and tile work, asbestos fireproof curtain, steam heating, electric wiring, etc. The cost will be about $40,000.

Leavenworth, Kan.—Bids will be received until Dec. 21 by J. A. Hall, County Clk., for constructing and remodeling an addition to the court house. Plans by William P. Feth, Arch., 405 Delaware St.

Sioux Falls, S. Dak.—The Noble Order of Mystic Shriners will erect a temple at the foot of Ninth St. The cost will be about $60,000.

Helena, Mont.—The Great Northern Ry. Co. will construct a pressed brick and cut stone, fireproof passenger station here. L. W. Hill, St. Paul, Minn., is Pres. S. L. Bartlett, St. Paul, is Arch. Estimated cost, about $100,000.

Forsythe, Mont.—Bids will be received until Jan. 16 by the County Commissioners for the construction of a court house. Plans have been prepared by Link & Haine, Billings. The cost will be about $90,000.

Paragould, Ark.—Bids were received as follows Dec. 19, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a U. S. post office building at Paragould: (a) limestone, (b) sandstone:- George W. Stiles Construction Co., Chicago, (a) $49,874; Algernon Blair, Montgomery, Ala., (a) $49,700, (b) $52,000; M. Yeager & Sons, Danville, Ill., (a) $45,918 (b) $47,225; B. S. Klodt, San Antonio, Tex., (a) $35,000, (b) $36,500; King Lumber Co. Charlottesville, Va., (a) $48,000, (b) $50,000; Hiram Lloyd Building & Construction Co., St. Louis, Mo., (a) $46,717.

+San Antonio, Tex.—The state of Texas has let the contract for the erection of a new hospital building at the Southwestern Insane Asylum here to the STANDARD CONSTRUCTION CO., of Houston. It will cost $45,000.

+Phoenix, Ariz.—The contract has been awarded to G. H. GALLAGHER for rebuilding the insane asylum building, recently destroyed by fire. Plans by J. M. Creighton, Arch., Phoenix. The cost will be about $60,000.

Pasco, Wash.—Bids will be received by E. F. Sheffield, County Audr., until Jan. 4, for constructing the county court house. Plans by C. Lewis Wilson & Co., Empire Bldg., Seattle.

San Francisco, Cal.—C. M. & A. F. Rousseau, Monadnock Bldg., are preparing plans for the construction of a 5-story reinforced-concrete apartment house to be erected on O'Farrell St. The estimated cost is $175,000.

C. W. Dickey, Arch., Balboa Bldg., is preparing plans for a Class "A" building to be erected at Oakland by Kahn Bros., a dry goods company. The structure will be twelve stories in height and will be erected on Telegraph and San Pablo Aves. Estimated cost, $500,000.

Van Nuys, Cal.—The taxpayers have voted to expend $50,000 to erect a high school, and the trustees will have plans

Berkeley, Cal.—A new addition for the Blind and Dumb Institute at Berkeley to cost about $50,000 is to be erected. It will be heated by steam. Bids will be advertised for through the State Engineering Department.

Fullerton, Cal.—The Board of Trustees of the Fullerton Union High School District will receive bids until 3 p. m., Dec. 22 for the erection of a group of brick school buildings.

+Los Angeles, Cal.—E. J. Borgmeyer, Arch., 317 Stimson Bldg., have awarded a contract to the HAGAN CONSTRUCTION CO., M. A. Rowland, Mgr., 1261 East Factory Pl., for the erection of a store and hotel building at East Fifth St., between Towne and Crocker Sts., for B. Rosin and L. Guggenheim.

Los Angeles, Cal.—Morgan, Walls & Morgan, Archs., Story Bldg., are preparing plans for a large brick warehouse to be erected on First St., east of Alameda St., for the Los Angeles Soap Co.

+Los Angeles, Cal.—Norman F. Marsh, Arch., Broadway Central Bldg., has awarded a contract to the A. McNALLY CO., Bradbury Bldg., for the erection of a 3-story brick store and apartment building at Windward Ave. and Trolleyway Venice, for the Venice Building Association.

Los Angeles, Cal.—Norman F. Marsh, Broadway Central Bldg., is completing plans for a 2-story and basement addition to the house and fine art building at the Hollywood Polytechnic High School.

Los Angeles, Cal.—A. Burnside Sturges, Arch., 615 Story Bldg., has been commissioned by the Board of School Trustees of Santa Paula to prepare plans and specifications for the new polytechnic high school building to be erected in that city. The building is estimated to cost $75,000.

Los Angeles, Cal.—The Atchison, Topeka & Santa Fe Ry. Co., Kervkhoff Bldg., is completing plans and will award the contract at once for the erection of a reinforced-concrete round house at Barstow. It will contain 25 engine stalls. The construction will be entirely of reinforced concrete, composition roofing, concrete floors and work pits. Plans are being prepared by H. C. Phillips, Ch. Engr., Los Angeles.

Edelman & Barnett, Archs., Blanchard Bldg., are preparing plans for a loft building to be erected on Broadway for Isaacs Bros. The plans provide for a 4-story structure, 61 × 150 ft. The construction will be of reinforced concrete with glazed brick facing and terra cotta trim. The "Kahn" system of floor construction will be used.

+Krempel & Erkes, Henne Bldg., have awarded the contract to the RAYMOND STONE CO., 781 Lyon St., Los Angeles, for constructing the granite work in the 4-story building being erected at First and Broadway for the Times Mirror Co.

Modesto, Cal.—Tentative plans will be submitted shortly for the new high school to be erected at Twelfth and M Sts.

Riverside, Cal.—The First Congregational Church of Riverside will erect a new church to cost $75,000. Myron Hunt, 1017 Union Trust Bldg., Los Angeles, is the Arch.

San Francisco, Cal.—C. M. and A. F. Rousseau, Monadnock Bld., are preparing plans for the erection of an apartment house to be erected on Washington St. The estimated cost is $40,000.

Sacramento, Cal.—The Pacific Gas & Electric Co. contemplate building a $100,000 structure at Eleventh and K Sts.

+Santa Monica, Cal. — The contract for the erection of the polytechnic high school buildings was awarded to J. A. HARMON & CO., 84 Kendall Pl., Pasadena, at $147,200. Plans were by Allison & Allison, 1206 Union Trust Bldg., Los Angeles. Other bids were as follows: J. E. Atkinson, $152,987; Alta Planing Mill Co., $167,897; Martin Madden, $210,000.

Prince Rupert, B. C. — The Grand Trunk Pacific Ry. Co. will soon commence the erection of a $75,000 hotel at Prince Rupert.

Vancouver, B. C.—A large theatre will probably be constructed here by A. Hampton. The cost will be about $400,000.

WATER SUPPLY—IRRIGATION.

(*+Denotes a contract awarded.*)

***Erie, Pa.**—Bids will be received by the Commissioners of Water-Works until noon, Jan. 12, for the design, construction and erection of a standpipe, foundation and pipe connections. Chester & Fleming, Union Bank Bldg. Pittsburgh, Pa., are Consult. Engrs. For details see advertisement in this issue.

+*Erie, Pa.—The Commissioners of Water-Works, Dec. 15, awarded the contract to the BETHLEHEM STEEL CO., South Bethlehem, Pa., for a 20,000,000-gal. vertical triple-expansion pumping engine. Five bids were submitted Dec. 6 as follows for the pump, which called for two different steam pressures, one at 195 and the other at 145, superheated to 100° at the throttle: Bethlehem Steel Co., (1) $102,400, (2) $102,-000; Holly Mfg. Co., Buffalo, N. Y., $104,769 and $104,769; the Wm. Tod Co., Youngstown, Ohio, $114,500 and $114,500; Hooven, Owens, Rentschler Co., Hamilton, Ohio, $119,950 and $124,950; Camden Iron Works, Camden, N. J., $148,500, $157,000, $150,500 and $159,000.

***Wilmington, Del.**—Bids were received by the Water Department, Dec. 18, as follows, for constructing and erecting on foundations built by the city, water turbines and vertical triplex, single acting power pumps, consisting of two units, discharging 4,000,000 and 2,000,000 respectively, with water turbines discharging 80,000,000 and 40,000,000 gals. under 19 ft. head at 78 r.p.m. respectively: (a) turbines, (b) pumps, (c) additional for Boyd valves: Camden Water Wheel Works Camden, N. Y., (a) $3,864 and $2,983; Risdon-Alcott Turbine Co., Mount Holly, N. J., (a) $3,300 and $3,000; S. Morgan Smith Co., (a) $4,500 and $3,700. Birdsboro Steel Foundry & Machine Co. (Aldrich Pump Department), Allentown, Pa., (b) $11,000 and $10,500; and $6,500 and $6,250; (c) $720 and $360.

+*Cumberland, Md.—The contract has been awarded by the Evitts Creek Water Co. and the Mayor and City Council to the MERRILL-RUCKGABER CO., 50 Church St., New York, for the construction of the new water system for the city, at $465,268. Bids were opened Dec. 1. List of bidders noted Dec. 14. Noted Feb. 9.

Elkton, Md.—The Maryland Water Co., it is reported, will construct a filtration plant.

Williamsport, Md.—Samuel N. Williams, Consult. Engr., Baltimore, Md., has estimated the cost of installing a water-works system here at $25,000.

Barton Heights (Richmond post office), **Va.**—The citizens voted Nov. 28 to issue $20,000 of bonds for improvements, including water-works, sewers and streets.

+Columbia, S. C.—The City Council has awarded the contract to the COLUMBIA CONCRETE CO. for the construction of twelve blocks of water and sewer mains at $5,300.

+Fort Dade (Egmont post-office), **Fla.**—The contract for installing the pumps for the water system at the government reservation here has been awarded to the A. M. LOCKETT CO., New Orleans, La., at $9,200.

Montgomery, Ala.—We are officially advised that bids will be asked in about 60 days by the Shades Cliff Land Co., 2014 First Ave., Birmingham, for the installation of a water-works system at Shades Mountain. R. L. Totten, Birmingham, is Engr. Noted Dec. 7.

+Piedmont, Ala.—We are officially advised that the City Council has awarded the contract to the J. B. McCRARY CO., Empire Bldg., Atlanta, Ga., for extensions to the water-works system and electric-light plant at $21,000. Bids were opened Dec. 9. Noted Nov. 2.

+Louisville, Ky.—The Board of Public Works has awarded contracts for fire hydrants in various parts of the city, as follows: To G. W. GOSNELL, Louisville, for 18 at $119 each; ten at $120 each; eight at $124 each, and three at $125 each; to EDWIN S. LARSON, Louisville, six at $119 each; three at $120 and one at $122.

Akron, Ohio.—The city voted bonds for $815,000 Dec. 5, to purchase the plant of the Akron Water-Works Co. Improvements to the old supply, a new reservoir, a pumping station, and purification plant will be constructed. The City Council voted $350,000 bonds Dec. 8 to start construction as soon as the franchise of the water company expires next April. Plans following the recommendations of Bradbury & Barbour, Consult. Engrs., are to be followed. John W. Gauthier is Dir. Pub. Ser.

Toledo, Ohio.—The city is considering the installation of a high-pressure pumping station, with equipment for generating electric energy. Estimated cost, $214,500. D. H. Goodwille is Supt. W.-Wks.

Cleveland, Ohio.—The Board of Control has rejected all bids opened Dec. 6 for the West Side water-works tunnel and the high pressure fire station equipment. New bids will be asked. A. B. Lea is Dir. Pub. Wks. Noted Dec. 14.

Farmington, Mich.—The citizens have voted $15,000 of bonds for the installation of a water-works system.

Benton Harbor, Mich. — The City Council has authorized the construction of a new pumping station.

+Chicago, Ill.—L. E. McGann, Comr. Pub. Wks., has awarded the contract for furnishing and erecting complete three pumping engines of 25,000,000 gals. capacity daily for Lake View Pumping Station to the NORDBERG MFG. CO., Milwaukee, Wis., at $274,200. Bids were opened Dec. 2. List of bidders noted Dec. 14.

Evanston, Ill.—The city has decided to install hypochlorite treatment at the water plant and will require special devices for applying bleach in proportion to pump performance. J. H. Moore is Comr. Pub. Wks.

+De Kalb, Ill.—We are officially advised that the contract has been awarded to the J. P. MILLER ARTESIAN WELL CO. by the city for furnishing the material and drilling a deep well at $4,629. Bids were opened Dec. 2.

Montgomery, Ill.—The Village Trustees are planning the installation of a water-works plant. It is planned to build the pumping station near the site of the new city hall. Wells will also be sunk and a water tower erected near by. The mains will be extended through all of the streets and to the Burlington sheep yards and the factory of the Lyon Metallic Co. Estimated cost, $15,000.

Appleton, Wis.—The city Dec. 1 purchased the water plant of the Appleton Water-Works Co. for $255,000.

Fox Lake, Wis.—Propositions are asked from engineers for the preparation of plans for the proposed water-works system. William F. O'Connell is Village Clk. Noted Dec. 14.

Centerville, Iowa.—Preliminary plans have been prepared for a new impounding reservoir and other work for the new supply of the Centerville Water Co.

+Mason City, Iowa.—We are officially advised that the contract has been awarded by the city to the ALLIS-CHALMERS CO., Milwaukee, Wis., for a 3,000,000-gal. pump, including condensers, at $11,140. Five bids were submitted.

Thompson, Iowa.—The town will issue $5,000 of bonds for the extension of the water-works system. Otto Alquist is Town Clk.

Glenwood, Minn.—The citizens have voted in favor of issuing $15,000 of bonds for increasing the water supply and extending the mains. Noted Nov. 30.

Minneapolis, Minn.—Bids will be received until Dec. 29 by the city for 3,500 tons of from 6 to 48-in. c.-i. water pipe, 200 tons of special castings for water pipe, and 233 6 to 48-in. valves. Andrew Rinker is City Engr.

+Blue Earth, Minn.—Bids were opened Nov. 21 by the City Council for constructing a 100,000-gal. steel tank and tower at least 100 ft. high to the balcony, together with the foundation. The contract has been awarded to the MINNEAPOLIS STEEL & MACHINERY CO., Minneapolis, Minn., at $5,789.

Hastings, Minn.—Bids will be received until Dec. 26 by J. H. Twichell, City Clk., for water and sewer improvements in Fifth St.

Wichita, Kan.—The citizens voted Dec. 12 in favor of constructing a new water-works plant to cost not more than $1,000,000. Fred Aley is Supt. W-Wks.

+Valley Falls, Kan.—The city has awarded the contract to the FISHER MACHINE WORKS, Leavenworth, Kan., for improvements to the water works system. Noted Oct. 19.

Ainsworth, Neb.—Bruce & Standevin, Consult. Engrs., Bee Bldg., Omaha, Neb., have been retained to prepare plans for extensions to the water-works system here.

Chamberlain, S. Dak.—The citizens have voted to issue bonds for $20,000 for the installation of a pumping station on the banks of the Missouri River.

Aberdeen, S. Dak.—W. G. Potter, Engr., Citizens Bank Bld., Aberdeen, has prepared plans for the construction of a reinforced concrete reservoir and a sewage purification plant for the city. The contract for furnishing material will be let in February. Noted Nov. 2.

Hankinson, N. Dak.—The city is considering increasing the water supply.

McClusky, N. Dak.—We are officially advised that the cost of constructing the water-works system here has been estimated at $10,000. A standpipe type of system will be installed. No engineer has as yet been engaged. Noted Nov. 23.

***Cowley, Wyo.**—Bids on $25,000 water-works bonds will be received by the Town Clerk, until Jan. 1. The Schenk-Nowell Engineering Co., is Engr., Basin, Wyo.

Newcastle, Wyo.—The city will construct a reservoir and a gravity pipe line system. Preliminary surveys are being made.

Mountain Grove, Mo.—The city has voted in favor of issuing $25,000 of bonds for the installation of a water-works system. Noted Nov. 23.

Corpus Christi, Tex.—J. E. Franklin, Missouri Trust Bldg., St. Louis, Mo., and associates are arranging to reclaim about 10,000 acres of land in the Nueces River Valley near here by constructing levees and a system of irrigation.

Midland, Tex.—Henry M. Halff will drill a number of wells and install pumping plants upon a tract of about 7,500 acres near here for the purpose of irrigating the lands.

Seadrift, Tex.—The City Council is considering the installation of a water-works plant and distributing system.

Dallas, Tex.—Bids will be asked soon by the city for the construction of a dam on Elm Fork of the Trinity River, about one mile north of Carrollton. The specifications will provide for gravel to be furnished by the city or to be supplied by the contractor. This dam will hold 600,000,000 gals. of water. J. M. Bassett is Ch. Engr. Water Dept. Noted Nov. 16.

Fort Stockton, Tex.—F. A. Hornbeck, it is reported, is at the head of a syndicate that will construct a large system of irrigation in this section. A reinforced-concrete dam will be built across the mouth of the canon to form a storage reservoir to irrigate 22,000 acres of land.

Timpson, Tex.—We are officially advised that bonds for water-works have been voted by the citizens. J. C. Bogard is City Secy.

***Muskogee, Okla.**—The time for receiving bids for 1,800 tons of 24-in. c.-i. pipe, 50 tons of specials, and 70

tons of 6-in. c.-i. pipe has been extended to Dec. 29. Bids were to have been opened Dec 20. Intending bidders are requested to write for specifications. Alexander Potter, 114 Liberty St., New York, is Consult. Engr. E. H. Fleming is Comr. Water, Sewers and Lights.

+Waukomis, Okla.—The contract for constructing water-works here has been awarded by the city to the OKLAHOMA CONSTRUCTION CO., Anardarko, Okla.

Kingfisher, Okla.—We are officially advised that bids for material for the proposed water-works and electric-light extensions here will be received about Jan. 15. The Benham Engineering Co., Oklahoma City, Okla., is preparing the plans and specifications. Noted Nov. 2.

Pryor Creek, Okla.—We are officially advised that the date for receiving bids for water hydrants, valves pumps, boilers, sewer pipe, etc., has been postponed. Bonds were to have been opened about Dec. 20. The Benham Engineering Co., Oklahoma City, Okla., is Engr. Noted Nov. 30.

Wagoner, Okla.—We are officially advised that plans and specifications are being prepared by the Benham Engineering Co., Oklahoma City, Okla., for water-works and electric light extensions here. The city will receive bids for material and work will be installed by the engineers.

***Montrose, Colo.**—Bids will be received until 4 p. m., Jan. 10, by the U. S. Reclamation Service, Montrose, for the construction of twelve miles of the West Canal, Uncompahgie Valley Project, Colo., in the vicinity of Montrose. C. T. Pease, Montrose, is Project Engr.

Carlsbad, N. Mex.—We are officially advised that all bids have been rejected by the Public Utilities Co. for the construction of a concrete dam across the Pecos River, near here. J. W. Lewis is Engr. Noted Sept. 7.

Nogales, Ariz.—The sale of the water-works plant and distributing system of the Nogales Water Co. to the city will soon be made. Extensions and improvements will follow.

Bellevue, Utah.—The Utah Dixie Land & Water Co. is considering the construction of a dam to impound about 15,000 acre ft. of water at a point on Ash Creek, about four miles above here. This water will be released from the reservoir and allowed to flow down the channel to a point about two miles below Bellevue where it will be diverted and conveyed by means of a canal 18 miles long to and upon 10,000 acres of lands. This canal will terminate at a point about three miles east of St. George. Estimated cost, $300,000. J. M. Lauritzen, St. George, Utah, is interested.

+Salt Lake City, Utah.—The contract has been awarded to the WESTERN CONSTRUCTION CO., Richfield, Utah, by the State Land Board Reservoir & Irrigation Project, Salt Lake City, for the construction of a portion of the Piute Canal from its present terminus west of Redmond, Sevier County, northward for a distance of about eight miles. The work involves about 120,000 cu. yds. of excavation. Bids were opened Nov. 9.

Granger, Wash.—The citizens Nov. 5 voted in favor of issuing $15,000 for the construction of a water-works system. W. L. Barker is Mayor. Noted Nov. 30.

Deer Park, Wash.—The town will issue $10,000 of bonds for the construction of water works.

+Elma, Wash.—We are officially advised that bids were received by the city Dec. 5, as follows for constructing a pumping plant and water-works improvements: (a) pipe line; (b) pump and engine: WELTON, KIBBE & COCHRAN, Portland, Ore., (a) $12,907; (b) $1,898 (awarded contract). Tiguanitte & Paine, Tacoma, Wash., (a) $13,020; (b) $1,400. Frank McHugh, Tacoma, (a) $13,123; (b) $1,653. McKim, Nevins & Co., Puyallup, Wash., (a) $13,892; (b) $1,600. W. H. Mitchell, Seattle, Wash., (a) $14,135; (b) $1,750. Galluci & DeRose, Tacoma, (a) $14,337; (b) $1,600. International Contract Co., Seattle, (a) $14,463; (b) $1,540. J. M. Clapp, Seattle, (a) $14,444; (b) $1,575. Washington Enginering Co., (a) $14,307; (b) $1,900. Williams & Beggs Co., Portland, (a) $14,437; (b) $1,898. Grays Harbor Construction Co., Hoquiam, Wash., (a) $14,088; (b) $2,250. L. L. Lent, Bremerton, Wash., (a) $14,900; (b) $1,775. Anderson Construction Co., Seattle, (a) $15,205; (b) $1,625. J. F. Wineland Bldg. & Eng. Co., Portland, (a) $17,071. Graff Construction Co., Seattle, (a) $15,771; (b) $1,571. Gordon & Ambrose, Portland, (a) $15,520; (b) $1,898. C. F. Peterson, Elma, (a) $15,521; (b) $2,170. Columbia Electric Co., Seattle, (a) $16,086; (b) $1,650. Fairbanks, Morse Co., Portland, (b) $1,620 & $1,825. United Iron Works, Seattle, (b) $1,950. Reierson Machinery Co., Portland, (b) $2,287. W. F. Wilkinson & Co., Portland, (b) $2,677. The itemized bid of Welton, Kibbe & Cochran for pipe line, etc., is as follows: Excavating and backfilling, 49 cts.; furnishing and laying c.-i. pipe, 4-in., 54 cts., 10-in. $1.29; furnishing and laying wire-wound wooden stave pipe, 8-in, 300-ft. head, 41 cts.; 10-in., 200-ft. head, 43 cts.; 10-in., 250-ft. head, 47 cts.; 10-in., 300-ft. head, 51 cts.; special castings, per lb., 4 cts.; hydrants, each, $34.90; valves, each, 4-in., $10.45; 8-in., $23.85; 10-in., $34.85; valve boxes, each, $4.50; air valves, each, $29.45; pump house, $300; sump, $500; 12-in. vitrified sewer pipe, per lin. ft., 45 cts.; 12-in. perforated sewer pipe, per lin. ft., 50 cts.; manholes, $75; 12-in. sluice gate, $30. Louis C. Kelsey is Consult. Engr., Selling Bldg., Portland, Ore.

South Bend, Wash.—The cities of South Bend and Raymond are considering the construction of a joint water-works system.

Stanwood, Wash.—The Stanwood Water Co. has filed articles of incorporation. The purpose of the company is to pipe water from the hills. The capital stock is $15,000. W. H. Conners, Stanwood, is interested.

Newberg, Ore.—Bids will be received until Jan. 15 by the city for a distillate engine or motor, turbine pump and a 10-in. supply main. Louis C. Kelsey, Selling Bldg., Portland, Ore., is Engr.

Vale, Ore.—The Eastern Oregon Land Co. is planning the irrigation of about 3,000 acres of land in the vicinity of the Shoestring Ditch located on the eastern boundary line of the county. Thomas W. Claggett, Vale, is interested.

Woodburn, Ore.—The city will improve the water-works system to be taken over from the private concern now operating it. Estimated cost, $15,000.

+Fresno, Cal.—Contracts have been awarded to the SAMSON IRON WORKS, Stockton, Cal., for the installation of 30 pumping plants to put water on two sections of land near Rasin, at $19,000. The proposition is being handled by the San Joaquin Valley Farms Co.

+Gonzales, Cal.—Cascioni Bros. have awarded a contract to the A. WIDEMANN CO. for the installation of a pumping plant on their ranch, at about $6,500.

+Los Angeles, Cal.—The contract has been awarded to MLAGENOVICH & GILESPIE, 332 Leroy St., Los Angeles, for constructing a distributing system for irrigation purposes for the Homeland Development Co., Lissner Bldg., Los Angeles. The system will be constructed in Kings and Tulare Counties. The pipe lines will consist of two miles of 13-in. vitrified pipe.

San Mateo, Cal.—The San Mateo Water Co. has offered to sell its plant and water rights to the city for $340,000. The City Engineer has estimated that the city could install its own distributing plant for $227,000.

Montreal, Que.—The following bids have been received by the Board of City Commissioners, for furnishing a pump for the Low Level Pumping Station: John McDougall & Co., 512 William St., Montreal, $29,300 and $30,400; Inglis & Co., Ltd., 114 Strathan Ave., Toronto, Ont., $25,300; Canada General Electric Co., $25,300: Chapman & Walker, $23,100, and $24,500; Laval Steam Turbine Co., $37,000.

Toronto, Ont.—The Board of Expert Engineers, retained by the city to study the water problem, submitted its report to the Board of Control Nov. 30. The report recommends an expenditure of $1,130,000. C. H. Rust is City Engr.

+Prince Rupert, B. C.—The contract has been awarded to the BALFOUR-GUTHRIE CO., Central Bldg., Seattle, Wash., for furnishing materials for the Woodworth water project, at $63,111.

Mexico City, Mex.—The Department of Public Works of the Federal Government has adopted plans for extending the municipal water-works and sewer systems and for laying additional blocks of asphalt pavement.

SEWERAGE.

(**Denotes that this work is advertised in Engineering News.*)

***New Bedford, Mass.**—The Board of Aldermen has recommended that contracts be awarded as follows for constructing that part of the intercepting sewer system along the shore: To Frank A. Gamino, Providence, R. I., at $104,243; for building the sewer in West French Ave.; to the J. W. Bishop Co., New Bedford, at $87,511. Bids for these contracts were received Dec. 12. Noted Nov. 16.

+Hartford, Conn.—The contract for constructing 2,700 ft. of sewer in Albany Ave. and 2,200 ft. in Scarborough St. has been awarded by the Board of Contract and Supply to the HARTFORD PAVING & CONSTRUCTION CO. at $17,849. The other bids were: Antonio Conti & Co., $19,405; O'Neil Bros. & Nero, $19,714; Bernardino Silvestri, $20,178; L. Petrossi & Co., $20,532; A. Byrne & Co., $21,270; C. H. Slocomb & Co., $21,398; John Manacchio, $22,181; Pierson Engineering & Construction Co., Bristol, Conn., $23,404. Bids were opened Dec. 11. R. N. Clark is City Engr.

West Hartford, Conn.—Ford, Buck & Sheldon, Inc., 60 Prospect st, Hartford, Consult. Engrs., and A. B. Alderson, West Hartford, Res. Engr., are making arrangements for the construction of a central sewer system at West Hartford. The work will require from ten to twelve miles of pipe, ranging from 10 to 24 ins. in diameter.

Buffalo, N. Y.—Bids will be received until Dec. 21 by the City Council for constructing a 45 and 42-in. brick sewer in Page St., a 12 and 15-in. sewer in Oak Grove and Gillette St., a 12-in. tile sewer in Argus St., and a 10, 12 and 15-in. tile sewer in Olympic Ave.

Gloversville, N. Y.—Bids for constructing a 30-in. trunk sewer with laterals, along Cayadutta Creek, for a distance of 2,904 ft., were received by the Common Council Dec. 11, as follows: Flood & Van Wirt Co., Hudson Falls, $22,159; Union Paving Co., Schenectady, $39,085; Sherill Contracting & Engineering Co., Hudson Falls, $28,662; Chas. J. McAleer, Schenectady, $30,392; Albert M. Banker, Johnstown, $29,806.

Middleport, N. Y.—Plans have been prepared for a sewer system estimated to cost $55,000.

New York, N. Y.—Bids will be received until 2 p. m., Dec. 26, by George McAneny, Pres. Boro. Manhattan, for reconstructing a double-barrel sewer and appurtenances under pier at foot of West 129th St., North River.

+Rochester, N. Y.—Press reports state that bids have been received by the Board of Contract and Supply for Contract No. 3, Division 6, of the intercepting sewer as follows: Schroeder-Hicks Contracting Co., (informal bid); WHITMORE, RAUBER & VICINUS, $261,845 (awarded contract); Brayer & Albaugh, $281,143; Jacob Allmeroth, $278,635; F. A. Brotsch, Jr., $340,270; Ripton & Murphy, $321,116; Thomas Holahan, $321,055.

Scarsdale, N. Y.—The town is considering the installation of a new sewer system to cost $125,000.

Troy, N. Y. — The lowest bid received for constructing an intercepting sewer in the Albia District, to connect with the sewer in the Sixth Ward was submitted by Eveline Bros., at $29,400. Bids were opened Dec. 12.

Norfolk, Va.—We are officially advised that the lowest bid received Dec. 12 for constructing the first section of the Lochhaven sewer system was submitted by F. C. McGuire, at $25,000. Bids for the other sections will be asked in the spring. The entire system will cover about 4½ miles. Arthur C. Freeman is Design Engr. Noted Dec. 14.

Columbia, S. C.—See item under Water Supply—Irrigation.

Atlanta, Ga.—The Sewer Committee is considering the extension of the eight trunk sewers to the city limits. The cost is estimated at from $400,000 to $500,000. R. M. Clayton is City Engr. Noted Dec. 7.

Savannah, Ga.—Press reports state that bonds for $600,000 have been voted for improving and extending the sanitary and storm water sewer systems. J. W. Howard is City Engr., and H. Willink is Supt. Sewerage.

Cincinnati, Ohio.—Resolutions have been passed for constructing sewers in various streets. Estimated cost, $95,000. J. J. Wenner is Clk. Dept. Pub. Ser.

East Liverpool, Ohio.—Bids will be received until noon, Dec. 28, by C. V. Beatty, Dir. Pub. Ser., for constructing sanitary sewers in the Fourth Ward, according to plans and specifications on file at the office of the Engineer, Dept. Pub. Ser.

New Philadelphia, Ohio.—Bids will be received until Jan. 15 for constructing 11.8 miles of sanitary and 3 miles of storm water sewers. Estimated cost, $140,000. F. Glauser is Pres. of Council.

Laporte, Ind.—E. C. Shoecraft, City Engr., has completed plans for a concrete pipe sewer, from 10 to 42-in. in diameter, which is to be constructed in the spring. Estimated cost, $50,000.

***+Glenellyn, Ill.**—The contract for constructing 21 miles of sewers with a septic tank and sewage filter plant has been awarded to the MARQUETTE CONSTRUCTION CO., 184 West Washington St., Chicago, at $132,088. The other bids were as follows: E. R. Harding, Racine, Wis., $134,086; Schruth & Son, Fargo, N. Dak., $139,000 (without purification plant); Nash-Dowale Co., Chicago, $149,818; Katz Construction Co., Omaha, Neb., $151,679; H. J. McNicholas, Chicago, $152,667; McGuire & Stanton, Leavenworth, Kan., $159,647. Noted Nov. 23.

St. Charles, Ill.—The city has voted in favor of a system of sewers estimated to cost $91,000.

Crawford, Neb.—We are officially advised that the city is considering the construction of 12-in. vitrified pipe sewers, estimated to cost $12,000. P. T. Francis is City Engr.

+Superior, Neb.—A contract has been awarded to DOBSON & BRECK, Lincoln, Neb., at $9,000, for constructing sewers in Superior. Van Unworth & Cooke, Superior, are Engrs.

Aberdeen, S. Dak.—See item under Water Supply—Irrigation.

+Kansas City, Mo.—Contracts for sewer construction have been awarded by the Board of Public Works as follows: To T. M. TURSON, storm water sewer in District 221, at $5,377; to WILLIAM & SAMPLE CONSTRUCTION CO., Essex Bldg., sanitary sewer in District 381, at $11,376, and a sanitary sewer in District 385, at $5,324. All the sewers will be of vitrified clay pipe.

University, (St. Louis post-office), **Mo.**—We are officially advised that bids will be asked some time in February for a sewer system estimated to cost $35,000. B. H. Colby, Security Bldg., St. Louis, is Engr.

Beaumont, Tex.—We are officially advised that the city is considering the construction of sewers to cost $80,000. C. C. Roberts is Chn. Bd. Pub. Wks., and C. L. Scherer is City Engr.

Waco, Tex.—Bids will be received until 10 a. m., Jan. 2, by P. A. Gorman, Comr. of Streets, Sewers and Pub. Impvts., for constructing sanitary sewers as follows: 2,900 lin. ft. of 15-in., 12,000 lin. ft. of 12-in., 10,000 lin. ft. of 10-in., and 6,000 lin. ft. of 8-in. vitrified clay sanitary sewer pipe; 108 lin. ft. of 15-in. and 96 lin. ft. of 12-in. c.-i. sewer pipe. Noted Dec. 14.

Pryor Creek, Okla.—See item under Water Supply—Irrigation.

Oklahoma City, Okla.—Contracts for the construction of an electrolithic sewer disposal plant in the Packingtown District have been awarded as follows: Machinery, to A. J. McMAHAN at $28,873; construction, to S. P. BENNETT at $17,709.

+Denver, Colo.—A contract for constructing sewers in Part A of Sub District No. 14 of the West and South Side Sanitary Sewer District, has been awarded to the DENVER & PUEBLO CONSTRUCTION CO., Denver, at $50,732. The work includes 58,449 lin. ft. of 8-in., 11,125 lin. ft. of 10-in., 3,892 lin. ft. of 12-in. and 364 ft. of 15-in. vitrified sewer pipe, and 274 manholes. Other bidders were: Dillon Stone Co., $53,039; Westcott-Doan Investment Co., $53,143; Peter O'Brien Construction Co., $55,076; Commonwealth Construction Co., $55,429; Gaffy & Keefe Construction Co., $56,139; Dennis Gibbons, $60,559.

Portland, Ore.—The Sewer Committee has authorized Thomas M. Hurlburt, City Engr., to prepare plans for extending the Canyon Road sewer to the city limits. Estimated cost, $70,000.

Mexico City, Mex.—See item under Water Supply—Irrigation.

GARBAGE DISPOSAL.

(*+Denotes a contract awarded.*)

Boston, Mass.—The contract for the disposal of garbage for a period of ten years will probably be awarded to the Boston Disposal Co., Globe Bldg., Boston, at $1,443,738. Bids were opened by Louis K. Rourke, Comr. Pub. Wks., Dec. 5. List of bidders noted Dec. 14.

+Rochester, N. Y.—The Board of Contract and Supply awarded the contract Dec. 6 to the GENESEE REDUCTION CO., Rochester, for the collection and disposal of garbage and dead animals for five years beginning Jan. 1, 1912, at $77,500 per year.

+Hoboken, N. J.—The Common Council has awarded the contract to the CENTRAL CONTRACTING CO. for the removal of ashes and garbage.

+Ocean City, N. J.—The City Commissioners awarded the contract Dec. 14 to GEORGE W. ERNEST for the collection of garbage for one year.

+Philadelphia, Pa.—The city awarded the contract, Dec. 14, to the PENN REDUCTION CO., 14 South Broad St., Philadelphia, for garbage disposal in 1912, at $278,588.

+Contracts were awarded as follows, Dec. 12, by M. L. Cooke, Dir. Pub. Wks.: For Schedule A, cleaning streets, alleys, inlets, public market houses, and for the removal of ashes, household waste and rubbish during the year 1912: First District, South Philadelphia, south of South St., between the Delaware and Schuylkill Rivers to EDWIN H. VARE, Betz Bldg., Philadelphia, at $179.999; Second District, between South and Poplar Sts. and the Delaware and Schuylkill Rivers to same contractor, $334,000; Third District, between Poplar St. and Lehigh Ave. and Broad St. and Delaware River to JAMES D. DORNEY, 1227 East Berks St., Philadelphia, (including trolley service), $312,000; Fourth District, between Lehigh Ave. and county line and Broad St. and Delaware River to JAMES CURRAN, Richmond and Elkhart Sts., Philadelphia, $172,000; Richard P. Bennis, $190,000; Fifth District, between Poplar St. and Lehigh Ave. and Broad St. and Schuylkill River, to H. A. McCLEMAN & BRO., Moyamensing and Juniper Sts., Philadelphia, $239,999; Sixth District, between Lehigh Ave. and county line and Broad St. to Schuylkill River to same, $139,900; Seventh District, between Market St. and north county line and Schuylkill River and west county line to MICHAEL McNULTY, $149,000; Eighth District, between Market St., and south county line and Schuylkill River and west county line to JAMES IRWIN (including central dump and trolley removal service), $119,000. Bids were opened Nov. 27. List of bidders noted Dec. 14.

Washington, D. C. — The District Commissioners are considering the installation of a garbage reduction plant.

+Mobile, Ala.—The city has awarded the contract to EDWARD ZELLER to construct and maintain a garbage reduction plant.

Hamilton, Ohio.—The City Council has authorized the Board of Public Service to ask for bids for the collection and disposal of garbage for a period of ten years.

+Indianapolis, Ind.—The Board of Public Works has awarded the contract to JESSE T. MOORMAN, Winchester, Ind., for the removal and disposal of garbage for a period of six years, at $48,000 per year. Bids were opened Dec. 6. List of bidders noted Dec. 14.

Oklahoma City, Okla.—Bids were opened as follows: Dec. 4 by the City Commissioners for the construction of an incinerator plant: Lewis & Kitchen, 901 Broadway, Kansas City, Mo., $19,400; $20.200, including a brick smoke-stack 125 ft. high; capacity, 50 tons garbage every 24 hrs.; Ralph E. Nye, $13,970, $11,970, $10,250 and $8,500, the differences being based upon the

amount of garbage to be destroyed daily: N. S. Sherman Machine & Iron Works Co., Oklahoma City, Okla., $22,000 for a 50-ton plant.

Los Angeles, Cal.—The Board of Public Works has appropriated $6,500 for emergency expenses for garbage collection. Homer Hamlin is City Engr.

STREETS AND ROADS.

*(*Denotes that this work is advertised in Engineering News.)*

New York, N. Y.—Bids will be received until 3 p. m. Dec. 28, by the Department of Parks, Arsenal Bldg., 5th Ave. and 64th St., Boro. of Manhattan, for repairing asphalt pavements in the Borough of Manhattan. Charles B. Stover is Pres. of the Park Bd.

Buffalo, N. Y.—Bids will be received until 11 a. m. Dec. 27, at Room 5, Municipal Bldg., for paving various streets. Francis G. Ward is Comr.

Buffalo, N. Y.—The City Council has passed a resolution for the repaving of Chandler St., which is 24 ft. wide; the paving of Beckwith St., 28 ft. wide, and Tousey St., 38 ft. wide, with asphalt.

Buffalo, N. Y.—The Board of Trustees has approved the project of widening Franklin St., near the City Hall, and plans are being prepared by the Bureau of Engineering.

***Montclair, N. J.**—Bids will be received until 8 p. m., Jan. 22, by Harry Trippett, Town Clk., for laying about 8,000 ft. of oblong granite block pavement on Bloomfield Ave., from the Borough of Glen Ridge line to the Borough of Verona line. Advertised Dec. 14.

Philadelphia, Pa.—Bids for paving Arch St. with wood blocks have been received by the Director of Public Works. The lowest bid was that of the McNichol Paving & Construction Co., at $2.87 per sq. yd. Total, $108,199.

Wilkes Barre, Pa.—Bids will be received until 10 a. m., Jan. 4, for the improvement and construction of a country road in the Borough of Duryea. Walter M. McAvoy is County Comr.

+Wilkes-Barre, Pa.—Contracts for constructing the new county road between this city and Hazleton have been awarded by the County Commissioners, as follows: Section 1—To B. G. COON, Dorrancetown, at $55,450; Section 2—To E. P. POST, Wilkes-Barre, at $60,417; Section 3—To HERRICK CONSTRUCTION CO., at $40,695; Section 4—To FREELAND CONSTRUCTION CO., Freeland, at $82,416.

Reading, Pa.—E. B. Ulrich, City Engr., has been directed to prepare specifications and to advertise for bids for paving, with vitrified block, the east side of Front St., between Washington St. and Schuylkill Ave., and Greenwich St., between 13th and Linden Sts.

Baltimore, Md.—The Paving Commission has ordered the paving of seven streets. R. Keith Compton is Chn. of the Comn.

Baltimore, Md.—This city will advertise for paving from five to eight miles of streets on or about the first of the year. Seventy-five per cent. of this will be asphalt resurfacing over cobble-stones, composed of 1½-in. binder and 1½-in. topping; fifteen per cent. will be vitrified block paving on a 4-in. concrete base, and ten per cent. will be Belgian block paving on a 6-in. concrete base. It is proposed to let these contracts on or about the third Wednesday in January.

Lynchburg, Va.—Board of Aldermen adopted an ordinance providing for a $550,000 bond issue for street improvements and sewer construction. Harry L. Shaner is City Engr.

Norfolk, Va.—The lowest bid for street improvement at Lochhaven, a residential suburb of Norfolk, was furnished by Lewis Lawson. The improvement included Tarvia roadbed, granolithic curb and sidewalk. A. C. Freeman is the Consult. Engr.

+Norfolk, Va.—The city has awarded a contract to PERRY W. RUTH CO., of Norfolk, to pave Church St. from Queen to Goff St. with Belgian block and oak wood keys. W. T. Brooks is Engr.

Richmond, Va.—The city is contemplating the construction of a boulevard from Gamble's Hill to Riverside Park. The estimated cost is $12,000. Charles E. Bolling is City Engr.

Marlinton, W. Va.—Reports state that Col. J. T. McGraw, of Grafton, will build an extension from his road on the Elk River to Marlinton, a distance of 25 to 30 miles.

Johnson City, Tenn.—Bids will be received until 7 p. m., Feb. 1, by the City Council, for constructing bridges, sewers, storm water drains, concrete curb and gutters, and street paving, in Improvement District No. 9, according to the plans of the City Engineer. P. F. McDonald is City Comr.

Louisville, Ky.—The Board of Public Works will pave the local wharf from First to Second St. with granite block. Roger McGrath is Secy

The Louisville & Jeffersonville Ferry Co. will build a concrete walk from First and Water Sts. to its ferry docks, in the next few months. H. L. Means is Pres.

The Henry Bickel Co. will regrade Hill St., from Sixth to Seventh to provide underpass for street cars in connection with extension of the Sixth Ave. line to the Avery Plow Plant. The regrading will cost $15,000, approximately, and work on the piers already standing in order to adapt them to new conditions, $3,000.

Columbus, Ohio.—The City Council has passed an ordinance providing for the paving of fifteen streets on the West Side. Henry Maetzel is City Engr.

East Liverpool, Ohio.—Bids will be received until noon, Dec. 28, by the Director of Public Service, for improving certain streets. C. V. Beatty is Dir. of Pub. Ser.

London, Ohio.—Bids will be received by the City Clerk until Jan. 16, for furnishing 2,800 sq. yds. of paving, either in brick, asphalt or creosoted block, Fifth St.

Elyria, Ohio.—Plans are being considered by the Board of County Commissioners for the longest macadam road in Lorain county. It will extend from the new 31st St. bridge at South Lorain to the Cuyahoga county line. While the construction work on the bridge will not begin until next year, the proposition of connecting it with the brick pavement that runs into Rocky River is already being considered.

+Brazil, Ind.—The Commissioners of Clay County have awarded contracts for four gravel roads, as follows: Asbury No. 2 road in Lewis Township, at $8,208, and the Spears road in Perry Township, at $9,078, to HAWKINS BROS.; Asbury No. 3 road to GRAHAM & HAAS, at $5,235.

Indiana Road Improvement.

Bids will be received as follows for highway improvement in Indiana:

Jan. 1—

Rensselaer, by the Commissioners of Jasper County, for the construction of a stone road in Hanging Grove township. James N. Leatnerman is Audr.

Newport, by the Commissioners of Vermilion County, for the construction of a gravel road in Helt township. H. T. Payne is Audr.

Jan. 2—

Winamac, by the Commissioners of Pulaski County, for the construction of public highways. W. E. Munchenburg is Audr.

Paoli, by the Commissioners of Orange County for the construction of a road in Orleans township. Alvin B. Ham is Audr.

Brownstown, by the Commissioners of Jackson County, for the construction of a road in Hamilton County. H. W. Wacker is Audr.

Lawrenceburg, by the Commissioners of Dearborn County, for the construction of a highway in Jackson township. W. S. Fagaly is Audr.

Knox, by the Commissioners of Starke County, for the construction of a gravel road in Davis township. Lee M. Ransbottom is Audr.

Jan. 3—

Queensburg, by the Commissioners of Decatur County, for the construction of a macadamized road in Clay township. Frank E. Ryan is Audr.

Alton, Ill.—The city will pave a levee, 200 x 1,000 ft., with brick, with a concrete foundation. The estimated cost is $37,000. J. E. Schwaat is City Engr.

***Carroll, Iowa.**—Bids will be received by the city clerk until 8 p. m., Jan. 24, for the improvement of various streets. J. A. Dougherty is City Clerk.

Davenport, Iowa.—The city will pave Second Ave., between Fourteenth and Twentieth Sts. A meeting will be held soon to decide on the construction material. J. A. Ryan is City Engr.

Minneapolis, Minn.—Bids will be received until Dec. 29 by Andrew Runker, City Engr., for 175,000 sq. yds. of creosoted wood block paving.

Topeka, Kan.—The County Commissioners have decided to build two miles of rock road, west of 21st St.

Bryan, Tex.—The commissioners court has been petitioned to issue $200,000 of bonds for 39 improved roads in Brazos county.

+Carthage, Mo.—The contract for paving Main and Third Sts. with Lake asphalt, has been awarded by the City Council to the R. J. & W. N. BOYD CONSTRUCTION CO., Kansas City, Mo., at $1.72 per sq. yd.

St. Louis, Mo.—The City Council has passed an ordinance providing for the improvement of Lynch Ave., 26th St., and Caseyville Road. The estimated cost is $184,200. James C. Traville is Supt. of Paving.

Portland, Ore.—The lowest bid submitted for the improvement of Patton Ave., with cement curbs and sidewalks, was that of Arthur Kern, at $13,586.

Coronado, Cal.—The city trustees have accepted new plans for sea wall improvement, and will call a special election in the near future for the issuance of bonds to defray the cost of improvement, as well as the paving of Orange Ave., from the ferry to the Hotel del Coronado. The cost of these two items will total $127,000.

Eagle Rock, (Glendale post-office), **Cal.**—The following bids were opened by the Board of Trustees for the improvement of Sycamore Ave., from the plans and specifications of Bixby & White, Engrs., Mason Bldg., Los Angeles; E. V. Parker, $10,600; Robert P. Law, $11,537; L. H. McGowan, $11,709.

Bids will be received about Jan. 1 for the improvement of Stanley Ave., Lindey Way, Noble St., Castel Ave., and Forest Ave. The work will require the grading, oiling and construction of cement curbs and gutters. The work will be done from the plans of Bixby & White, Engrs., Mason Bldg., Los Angeles.

Longbeach, Cal. — Condemnation proceedings for the widening of American Ave., from Ocean Ave. to the ocean were instituted in the Superior Court on Dec. 5, by the city of Longbeach.

Los Angeles, Cal.—Bids will be received until 2 p. m., Dec. 26, by the Board of Supervisors for the construction of a concrete culvert on the Telegraph Laguna Road in San Antonio Road District No. 3. H. J. Lelande is County Clk.

+Los Angeles, Cal.—The following contracts were awarded on Dec. 11 for street work: To the FAIRCHILD-GILMORE-WILTON CO., for improving 23d St. between Figueroa and Hoover Sts., at $18,594. To the BARBER ASPHALT PAVING CO., for improving Pasadena Ave. from Ave. 34 to Ave. 36, at $8,377. To J. S. MENEFEE, for improving 36th St., at $1,716.

+Fresno, Cal.—The Board of Trustees have awarded the contract for paving M St., from Tulare to Kern St., to WARREN BROS. CO. W. H. Ryan is City Clerk.

+Hermosa Beach, Cal.—The contract for improving 13th St. was awarded to the BARBER ASPHALT PAVING CO., Los Angeles, and this company also received the contract for improving Easy St.

+Monterey, Cal.—The contract for the improvement of Pine St., from Line St. to Drake Ave., has been awarded to T. A. WORK & CO., at $13,300.

+Lodi, Cal.—The contract for paving Sacramento, Pine and Elm Sts. has been awarded by the City Trustees to the RANSOME CRUMMEY CO., at $35,672.

+Uplands, Cal.—The contract for the improvement work on 10th St. has been awarded to the HIGHWAY CONSTRUCTION CO., Redlands, at 10 cts. per sq. ft. for macadam; curb, 19 cts. per lin. ft.; gutter, 11 cts. per sq. ft.

INDUSTRIAL WORKS.

(+Denotes a contract awarded.)

Boston, Mass.—Henry F. Keyes and Monks & Johnson, Archs. and Engrs., Ass'd, Boston, Mass., are preparing plans and specifications for the Boston Fish Market Corporation for five buildings to be located on tide water at South Boston. Two of the structures will be 720 x 60 ft., three stories high, and will be built on the new state pier that will be 1,200 ft. long x 400 ft. wide. The other three buildings will be located on the south side of Northern Ave. just across from the pier. Two of these will be 600 x 60 ft. and three stories high, while the third, a freezing plant, will be 70 ft. sq. These buildings will be of modern fireproof construction and will house practically the entire wholesale fish industry of Boston.

Boston, Mass.—Plans have been completed for the construction of a plant for the Central Foundry Co., New York, for manufacturing between 200 and 300 tons daily of pipe and fittings.

Beverly, Mass.—A factory building and a power plant will be built near Congress St. by F. W. Stuart & Co.

+Chicopee, Mass.—The general contract has been awarded to CASPER RANGER, Holyoke, Mass; The E. H. Friedrich Co., Holyoke, holds the contract for plumbing, roofing and metal work for the 6-story factory building for the Dwight Mfg. Co. Charles T. Main, Boston, Mass., is the Engr.

Holyoke, Mass.—Richard Dietz is planning the erection of a bakery on Chicopee St. It will be about 50 x 100 ft. of brick, and two or three stories high.

Worcester, Mass.—A factory building is in contemplation by the Wire Goods Co. on land located between the Boston & Maine R. R. and the Strand extension near Barbers Crossing.

Bridgeport, Conn.—The Sprague Meter Co., Bridgeport, Conn., will construct a steel factory three stories high.

+Seymour, Conn.—The general contract has been awarded to The TRACY BROS. CO., Waterbury, Conn., for another building at the plant of the Henry A. Mathews Mfg. Co. It will be 60 x 60 ft. of concrete blocks, the BERLIN CONSTRUCTION CO., Berlin, Conn., hold the contract for the steel work. Noted Oct. 26 and Nov. 23.

Buffalo, N. Y.—The North Buffalo Hardware Foundry, a newly incorporated concern at Buffalo, N. Y., with temporary office at 28 Erie St., has completed plans for and will build and equip a 1-story foundry building at Hertel Ave. and the Erie R. R.

Buffalo, N. Y.—Plans have been completed by Cyrus K. Porter & Sons, for the construction of a factory building at Northland Ave., for the International Auto League Tire & Rubber Co. The cost will be about $135,000.

+Buffalo, N. Y.—The Guilford Mfg. Co., 325 Guilford St., has let a contract to the J. H. TILDEN CO., 12 Henry St., to erect its proposed plant. Plans by Esenwein & Johnson, 781 Ellicot Sq.

Syracuse, N. Y.—The Julian Motor Co., Julian S. Brown, Pres., capitalized at $200,000, has been incorporated to manufacture motors for automobiles, motor boats and trucks. The factory probably will be erected here.

Finderne, N. J.—Press reports state the H. W. Johns-Manville Co., 100 William St., has purchased a large tract in Finderne, N. J., and will probably construct a new asbestos plant. The total expenditure, including about 200 houses for workmen, will be about $2,000,000. No architect or engineer has been retained.

+Butler, Pa.—The contract has been awarded to the YORK MFG. CO. for making improvement to the ice-making factory of the Standard Ice Co. on Monroe St.

Chester, Pa.—Plans are being prepared for the construction of a cold storage plant as an annex to the office building to be built here for Swift & Co. The cost will be about $25,000.

Lancaster, Pa.—Plans have been completed for the construction of a nickel-plating plant by the Lancaster Foundry Co.

Pottstown, Pa.—L. Stark & Co., 407 East 70th St., New York, N. Y., will construct a factory in Pottstown.

+Pittsburg, Pa.—The contract has been awarded to GROSSMAN & SON, North Side, for the construction of a 4-story bakery and stable at Perryville Ave., for Kummen Bros.

+Philadelphia, Pa.—The contract has been awarded to WILLIAM STEELE & SONS CO., 1600 Arch St., for erecting a 6-story reinforced-concrete manufacturing plant at 24th and Locust Sts. for the Lanston Monotype Co. The estimated cost is $200,000.

Bids will be received by Day & Zimmermann, Engrs., Philadelphia, Pa., for the proposed building (including grading, excavation, reinforced steel, structural steel, concrete work, plumbing, roofing, etc.) for the Hess-Bright Manufacturing Co., to be constructed during the later winter and early spring of 1912 on the recently purchased site at Front and Erie Aves.

Wilkes-Barre, Pa.—Plans are being prepared by Charles H. Caspar, Engr. and Arch., West End Trust Bldg., Philadelphia, for the construction of a 5-story concrete brick, steel and concrete stock house for the Stegmaier Brewing Co. Cost, about $250,000. Noted erroneously Dec. 7.

Baltimore, Md.—Plans for the extension of the confectionery manufacturing plant of Edward H. Josselyn at 702-704 North Rurnham St., are now being prepaed by Callis & Callis, Archs., Baltimoe, Md. JOHN T. THOMPSON holds the contract.

Lynchburg, Va.—The Lynchburg Abattoir Co. has purchased 11 acres in Amhurst County. and will construct an abattoir to include a cold storage plant.

Roanoke, Va.—The Salvation Match Co. has been organized, capitalized at $6,000,000, for the purpose of manufacturing non-poisonous matches. A plant will be established.

Atlanta, Ga.—The Southern Mfg. Co. has been incorporated to build and operate a cotton factory. The company is capitalized at $100,000.

Chelsea, Ala.—The Stapp-Bass Lumber Co., Chelsea, will construct a planning mill.

Leeds, Ala.—The Directors of the Standard Portland Cement Co. proposes doubling the capacity of the plant. The probable cost will be $500,000.

Memphis, Tenn.—The Improved Brick Stone Co., Memphis, will erect a plant for the manufacture of a new process brick. The cost is $10,000.

Nashville, Tenn.—Contracts will soon be awarded by the Board of Trustees of the Central Hospital for the Insane for an 8-ton refrigerating plant. C. S. Brown, Nashville, is Consult. Engr.

Nashville, Tenn.—The Southern Ice Co. of Delaware has been incorporated with a capital of $5,000,000 for the purpose of building a chain of factories in Tennessee. A charter has been filed in Nashville. J. H. Howe, Nashville, is interested.

Trenton, Tenn.—The Tennessee Cotton Oil Mills Co. will rebuilt its plant, which was recently destroyed by fire. The cost will be about $50,000.

Louisville, Ky.—The Louisville City Ry. Co. will erect a car barn on Broadway between 29th and 30th Sts. to cost $15,400.

Lexington, Ky.—The Wallen Mfg. Co. will enlarge its plant for the manufacture of furniture, tobacco hogsheads, etc.

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West Liberty, Ky.—The Huntington Handle Co., Huntington, W. Va., plans the construction of a hickory handle factory in West Liberty, Ky.

Barberton, Ohio.—A 1-story addition will be constructed by the Pittsburgh Valve & Fittings Co. to its plant in Barberton.

Columbus, Ohio.—A shoe manufacturing plant will be constructed here by the Edwin Smith Shoe Co., Columbus. Plans are being prepared by Richards, McCarty & Baford, Archs., Columbus, Ohio.

Dayton, Ohio.—The Washed Gravel & Sand Co., Dayton, Ohio, has purchased a large tract of gravel land near Jackson, Mich., and will construct a plant. The probble cost is $75,000.

Toledo, Ohio.—Schenck & Williams, Archs., 501 Arcade Bldg. and L. M. Gram, Engrs., 1041 Spitzer Bldg., Toledo. The cost will be about $400,000.

+Toledo, Ohio.—G. S. Mills, 1234 Ohio Bldg., Toledo, has awarded the general contract for a 2-story factory, for the Toledo Fibre Package Co., to JOHN ARMSMAN, 423 West Center St.

Youngstown, Ohio.—The National Electric Lamp Co., Cleveind, will probably construct a new plant in Youngstown.

Evansville, Ind.—A plant will be built by the International Steel & Iron Construction Co., purchasers of the plant of the Store Fixtures Co.

Muncie, Ind.—The T. W. Warren Co., Muncie, Ind., has had plans prepared for the construction of a factory building and power-house. The cost is approximately $20,000.

Bay City, Mich.—The plant of the National Chicory Co., at Bay City, which was relently destroyed by fire, will be rebuilt on a larger scale of fireproof construction.

Battle Creek, Mich.—The Nichols & Shephard Co., Battle Creek, Mich., will probably construct a new iron foundry.

+Detroit, Mich.—Contracts have been awarded by F. T. Barcroft, 1728 Ford Bldg., Detroit, for the construction of a 2-story factory for the American Harvester Co. Structural iron work to the WISCONSIN BRIDGE CO., Milwaukee, Wis; masonry to BLAKELY & WEITZELL, 210 Leicester Court, Detroit, Mich.; carpentry to O. D. FISHER CO., 1046 Warren Ave., West Detroit. Cost, $25,000. Noted Dec. 14.

+The general contract has been awarded to LEONARD SCHOLL & SON, 298 Twelfth St., for the construction of a brewery. The West Side Brewery Co., 412 Howard St., Detroit, is owner. The cost is about $20,000.

Grand Rapids, Mich.—Bids will soon be received by Frank P. Allen & Son, Houseman Bldg., Grand Rapids, for the construction of a 2-story and basement factory. The cost will be about $400,000.

Port Huron, Mich.—It is reported that the Grand Trunk R. R. will double the capacity of its shops at Port Huron. W. E. Davis, Montreal, Que., is Traffic Mgr.

+Two Rivers, Wis.—The Hamilton Mfg. Co. awarded the general contract for the construction of its $35,000 addition for steel furniture and filing caminet manufacture to F. L. WOLFE, Two Rivers, Wis.

St. Paul, Minn.—The Hackney Manufacturing Co., L. S. Hackney, St. Paul, Pres., will erect a group of factory buildings in the Midway district for making a gasoline-driven auto-plow. A group of buildings will be built, the first one early in the spring of 1912. The entire cost will be about $200,000.

+The Vitone Chemical Co., St. Paul, awarded the contract for the construction of its pressed brick and cut stone, 3-story factory at Wheeler Ave. and Shields St., Midway District, to MARTIN FENSTAD, 1872 Laurel Ave. The cost is about $25,000.

St. Paul, Minn.—The Theo. Hamm Brewing Co., St. Paul, Minn., will construct a machine and blacksmith shop on Cable Ave. The cost will be about $12,000.

Omaha, Neb.—A creamery will be constructed at 14th and Jones Sts., by the David Cole Creamery Co. Plans are being prepared by John Latenser, Arch., 626-632 Bee Bldg., Omaha.

Huntersville, Mo.—The Norman Land & Mfg. Co., Huntersville, Mo., has been incorporated with a capital stock of $20,000. A plant will be constructed.

Kansas City, Mo.—The Everlasting Fence Post Co., Kansas City, has been incorporated with $100,000 capital stock. A plant will be constructed.

Whitecliffes, Ark.—A portland cement plant of 5,000 bbls. daily capacity will be built at Whitecliffes in Little Rock County. Address the Little Rock Chamber of Commerce.

Corpus Christi, Tex.—It is reported that O. N. Ponce and associates contemplate installing cold storage and ice plant here at a cost of $100,000.

Palestine, Tex.—It is reported that Joseph Myers will establish a factory for the manufacture of brick and concrete blocks.

Yoakum, Tex.—The Creamery-Dairy Co., of San Antonio, will install a 30-ton ice factory here.

Douglas, Ariz.—Plans have been completed for the large supplemental plant which will be constructed by the Calumet & Arizona Mining Co., at its local smelter.

Anaheim, Cal.—It is reported that the Durocar Mfg. Co., of Los Angeles, is planning the erection of an automobile factory here.

Los Angeles, Cal.—The American Silent Motors Co. will shortly select a site for a $2,000,000 automobile factory with a capacity of 10,000 cars a year. Work will begin on this project within 90 days. I. T. Bush is interested.

San Francisco, Cal.—The Alameda Sugar Co. will probably construct a new plant in the Sacramento Valley.

Oroville, Cal.—A plant will probably be erected here by C. F. Greenaway, Los Angeles, Cal., for pickling olives.

Porterville, Cal.—The contract has been awarded to the TEMPLETON BROS. for the construction of the proposed Armour fertiliser factory.

MISCELLANEOUS CONTRACTS.

U. S. RECLAMATION SERVICE.—All news concerning canal and irrigation projects, etc., will be found under Water Supply—Irrigation.

Breakwater.—Bar Harbor, Me.—Bids will be received by Lt.-Col. W. E. Craighill, Corps Engrs., U. S. A., Portland, Me, until Jan. 15 for the construction of a breakwater near Bar Harbor.

***Dredging.**—Portland, Me.—Bids will be received by Lt.-Col. W. E. Craighill, Corps Engrs., U. S. A., Portland, until Jan. 15 for dredging in St. Croix River, Me.

+Breakwater Work.—Burlington, Vt. —The contract has been awarded to E. C. SICKLES, 844 North Carey St., Baltimore, Md., for constructing rubble mound in front of the breakwater here, at $55,500. Bids were opened Nov. 6 by Col. W. M. Black, Corps Engrs., U. S. A., Army Bldg., New York.

+Rock Excavation.—Boston, Mass.—The contract for rock excavation, Weymouth, Fore River, Mass., has been awarded to the EASTERN DREDGING CO., 247 Atlantic Ave., Boston, at $8.70 per cu. yd. Bids were opened Nov. 20 by Col. Frederic V. Abbot, Corps Engineers, U. S. A., Boston. List of bidders noted Dec. 7.

Rock Excavation.—Gloucester, Mass. —Bids will be received until noon, Jan. 11, by Col. Frederic V. Abbot, Corps Engrs., U. S. A., Boston, Mass., for rock excavation in Gloucester Harbor.

Repairs to Fireboat.—New York, N. Y.—Bids will be received by Joseph Johnson, Fire Comr., until 10.30 a. m., Dec. 26, for repairs to the fireboat, "The New Yorker."

Greenhouse.—New York, N. Y.—Bids will be received by the Park Board, Dept. of Parks, Arsenal Bldg., Fifth Ave. and 64th St., Boro. Manhattan, until 3 p. m., Dec. 28, for completely erecting and constructing an additional greenhouse in the Botanical Garden, in Bronx Park, Boro. the Bronx.

Steam Rollers.—New York, N. Y. — Bids will be received by Cyrus C. Miller, Pres. Boro. The Bronx, until 10.30 a. m., Dec. 26, for one 8 and one 5-ton steam asphalt roller for the Bureau of Highways.

Steel Filing Cases.—New York, N. Y. —Bids will be received by George McAneny, Pres. Boro. Manhattan, until 2 p. m., Dec. 27, for furnishing and installing steel filing cases in the Bureau of Sewers Offices, Commissioner of Public Works, 21 Park Row.

Stone Wall.—New York, N. Y.—Bids will be received until 3 p. m., Dec. 28, by the Park Board, Dept. of Parks, Arsenal Bldg., Fifth Ave. and 64th St., Boro. Manhattan, for furnishing all labor and materials for completely erecting a stone wall, surmounted by an iron fence in the Botanical Gardens, Bronx Park, Boro. The Bronx.

***Subway.**—New York, N. Y.—Bids will be received until Jan. 11 by the Public Service Commission, for Section 3 of the Lexington Ave. Subway, Tri-Borough Subway System. The work will consist of the construction of 2,611 ft. of 4-track subway in Broadway between Howard and Bleecker Sts.

Topsoil. — New York, N. Y. — Bids were received Dec. 7 by the Park Board for furnishing and delivering topsoil or garden mould at Fort Greene Park and Sunset Park, Boro. Brooklyn. The lowest bids submitted were those of John Conner, 262 Rogers Ave., Brooklyn, at $9,265 and $6,480, respectively.

Compressed Air Mains.—New York, N. Y.—Bids will be received until 11 a. m., Jan. 13, by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the extension of the compressed air mains at the navy yard, New York. Wm. M. Smith is Acting Ch. of Bureau. Specifications are on file at the office of Engineering News, New York.

Park Improvement.—Yonkers, N. Y. —Plans have been ordered drawn by S. L. Cooper, City Engr., for generally improving Sunset Park.

***Elevator.**—Oxford, N. Y.—Bids will be received until 10 a. m., Feb. 7, by Georgiana Griffith, Pres. Bd. Trustees, Woman's Relief Corps Home, Oxford, for installing a hydraulic elevator in the hospital building, including construction, plumbing and elevator work. Allan C Bakewell is Secy.

+Pipe Line.—Bruin, Pa.—The High Grade Oil Refining Co., Butler, Pa., awarded contracts Dec. 13 to V. Q. HICKMAN, Union Bank Bldg., Pittsburgh, for 25 miles of pipe for main and lateral lines, leading to the new refinery at Bruin. The Bruin refinery has a capacity of $20,000 barrels per month.

***Dikes.**—Philadelphia, Pa.—Bids will be received until noon, Jan. 20, by Herbert Deakyne, Corps Engrs., U. S. A., 815 Witherspoon Bldg., Philadelphia, for constructing four dikes in the Delaware River, below Philadelphia.

Bulkhead.—Philadelphia, Pa.—Bids have been received as follows by the Department of Wharves, Docks and Ferries for the construction of a bulkhead on the west side of the Schuylkill River, between 53d and 56th Sts.: Filbert Paving & Construction Co., Pennsylvania Bldg., Philadelphia, $256,775; McHarg-Barton Co., New York, $268,038; Armstrong & Latta, Philadelphia, $272,480; American Paving & Construction Co., Philadelphia, $283,017; J. J. Williams & Co., Chester, Pa., $292,535; John McMenamy, $305,445.

***Lighthouse.**—Baltimore, Md. — Bids were received as follows Dec. 15 by Com. H. C. Poundstone, Lighthouse Inspector, Baltimore, for the metal work and erection of the Thimble Shoal Lighthouse, Va.: The Champion Iron Co., Kenton, Ohio, Item (1) $27,058; Lynchburg Foundry Co., Lynchburg, Va., (1) $28,615, (2) $27,940, (3) $27,495; Richard Mfg. Co., Bloomsburg, Pa., (1) $29,872, (2) $29,572, (3) $29,472; New Jersey Foundry & Machine Co., New York, (1) $32,587, (2) $32,087, (3) $32,107; Poole Engineering & Machine Co., Baltimore, Md., (1) $42,674, (2) $41,360, (3) $40,579; Russell Wheel & Foundry Co., Detroit, Mich., (3) $39,390; E. Hart, Norfolk, Va., (1) $46,500; The Foundation Co., New York, (1) $60,800; Ernest C. Moore, New York (bid informal).

Ordnance.—Washington, D. C.—Bids were received as follows Dec. 19, by the Navy Department, for (a) 50,000 1-pounder shot; and (b) 20,000 5-in. shell. Bethlehem Steel Co., South Bethlehem, Pa., (a) 36 cts. each; (b) $12; E. W. Bliss Mfg. Co., Brooklyn, N. Y., (b) $11.75 for 7,500; Scovell Mfg. Co., Waterbury, Conn., (a) 31.5 cts.; Washington Steel & Ordnance Co., Washington, (b) $12.48 for 500; Midvale Steel Co., Philadelphia, Pa., (b) $20; American & British Mfg. Co., Bridgeport, Conn., (a) 39 cts., (b) $11.58 for 7,000.

Park Work.—Washington, D. C.—The District Commissioners in their annual report have recommended the following: A highway and park in Klingle Ford Valley, to cost $190,000; acquisition of Mt. Hamilton Park, $95,000, and other park extensions.

+Dredging.—Washington, D. C.—The contracts for dredging in the Mattaponi River, Va., and the Pamunkey River, Va., have been awarded to W. H. FRENCH, Norfolk, Va., at 19.5 cts. and 18.5 cts., respectively. Total, $12,888. Bids were opened Nov. 18 by Lt.-Col. W. C. Langfitt, Corps Engrs., U. S. A., Washington. List of bidders noted Nov. 23.

Dredging.—Washington, D. C.—The following bid from W. H. Dorsey, Washington, was received by the Commissioners of the District of Columbia, Dec. 13, for dredging a channel from the Potomac River to the land of the Home for the Aged and Infirm, Blue Plains, D. C.: $4.20 per hr. with 90 cu. yds. guaranteed per hr., 4 cts. per cu. yd. deduction to be made for failure to dredge guaranteed amount. Time to complete, 75 days.

+Statue.—Washington, D. C.—The contract was awarded Dec. 12 to JOHN J. BOYLE, New York, for building a statue to Commodore John Barry. Congress has appropriated $50,000 for the purpose.

+*Dredging.—Charleston, S. C.—The contract has been awarded to the SIMONS-MAYRANT CO., Charleston, for dredging the canal between Charleston and McClellanville, S. C., at 17.7 cts. per cu. yd.: $34,400. The work involves the dredging of 200,000 cu. yds. List of bidders noted Nov. 2.

Drainage Canal.—Greenville, Miss.—The cost of the construction of a drainage canal for Riverside Drainage District has been estimated at $400,000 instead of $40,000 as noted Dec. 7. B. B. Gordon, Greenville, is Consult. Engr.

Drainage District.—Crowley, La.—The Fifth Ward Road Commissioners of Crowley are considering the construction of a drainage district.

Drainage.—Donaldsonville, La.—The citizens of Ascension and Iberville Parishes voted Nov. 29, it is reported, to issue $60,000 of bonds for drainage work.

+Levee Work.—Shreveport, La.—The contract has been awarded to M. M. HUNT by the Board of Commissioners of Caddo Levee District, Shreveport, for constructing Sections 1, 65,000 cu. yds., and 2, 75,000 cu. yds. of the Cuba to Mulhaupt Levee, at 11.20 cts. and 11.40 cts., respectively. Bids were opened Dec. 15.

Riprap.—Memphis, Tenn.—Bids will be received until noon, Jan. 10, by the Mississippi River Commission, First and Second Districts, at the office of Maj. Clarke S. Smith, Corps Engrs., U. S. A., Memphis, for furnishing 40,000 tons of riprap.

+Removing Island.—Coshocton, Ohio.—T. J. NORMAN & SON have been awarded the contract for removing the island in the Tuscararawas River at the foot of Walnut St. All the bids received were above the estimate placed on the work by the County Engineer. T. J. Norman & Son, the low bidders, agreed to do the work at the estimated price.

Steel Barges. — Cincinnati, Ohio.—Bids will be received until noon, Jan. 13, by Maj. John C. Oakes, Corps Engrs., U. S. A., Custom House, Cincinnati, for constructing two steel-deck barges and one steel open barge for the Kentucky River.

+Levees and Ditches.—Winchester, Ill.—Bids were received Nov. 29 by the Scott County Drainage and Levee District, Charles W. Brown, Engr., Jacksonville, Ill., for the construction of levees and ditches. The contract has been awarded to the FEDERAL CONTRACTING CO., Beardstown, Ill., at 13 cts. per cu. yd. for 840,512 cu. yds. of levee construction, and at 10 cts. per yd. for 185,042 cu. yds. of open ditches.

+Ditch.—Madison, Wis.—Bids were received Nov. 17 by the Commissioners of Koshkonong Mud Creek Drainage District, at the office of Buell & Lucas, Attys., Madison, for constructing a main ditch and laterals. The main ditch will be 13¾ miles long, 8 to 26 ft. wide at bottom, average depth 5.5 ft., slopes 1 to 1, requiring excavation of 270,000 cu. yds., floating dredge work. There will be 28 laterals, aggregating 11.1 miles in length, 2 ft. wide at bottom, 4 ft. deep, slopes 1 to 1, containing 62,500 cu. yds. of dry land excavation. Three railroad bridges and seven highway bridges will be constructed. The soil is muck, clay and gravel, and nearest railroad station is Deerfield, one mile distant. The contract has been awarded to JOHN CORBETT, Bancroft, Wis., at about $26,000. E. R. Jones, Madison, is Engr. for the district.

Dock.—Superior, Wis.—The Standard Boat Line, Duluth, Minn., is negotiating with the city for the erection of a large dock and laying tracks on the city dock property. Estimated cost, $300,000.

+Ore Dock.—Superior, Wis.—The Minneapolis, St. Paul & Sault Ste. Marie Ry. Co. has awarded a contract for the construction of a 600-ft. extension to St. Louis Bay dock to FOLEY BROS., St. Paul, Minn. Part of the contract has been sublet to PEPPARD & FULTON, St. Paul, erectors of the original dock. Estimated cost, $225,000.

Drainage Work.—Eldora, Iowa.—Bids will be received until noon, Jan. 4 by the County Commissioners, Eldora, for the construction of drainage work in District No. 25 and for furnishing the material for same.

Tile Drains.—Forest City, Iowa.—Bids will be received until 10 a. m., Dec. 28, by the Joint Board of Supervisors of Winnebago and Kossuth Counties, at Forest City, for 5,500 ft. of 24-in., 4,200 ft. 22-in., 1,600 ft. 20-in., 3,800 ft. 15-in., 5,200 ft. 14-in., 5,600 ft. 12-in., 1,738 ft. 10-in., 7,341 ft. 8-in., 307 ft. 7-in., and 4,064 ft. 6-in. tile drains. C. K. N. Nelson, Forest City, is County Audr., Winnebago County.

+Drainage Ditch.—Nevada, Iowa. — The contract has been awarded to the HAWKEYE CONSTRUCTION CO., Webster, Iowa, by the Supervisors of Story County, Nevada, for constructing a drainage ditch, at $36,000.

Ditch.—Sibley, Iowa.—Bids will probably be asked in the spring for the construction of Joint Ditch No. 1, by Osceola and Dickinson Counties. This work will include three miles of open ditch and 35 miles of 6 to 30-in. tile. L. A. Wilson, Sibley, is Engr.

Ditch.—Elbow Lake, Minn.—Bids will be received until 3 p. m., Jan. 27, by O. E. Wold, County Audr., Elbow Lake, for the construction of County Ditch, No. 13. The work will require 8, 10 and 12-in. tile.

Levee.—Independence, Mo.—Plans are being prepared for a levee around the Blue Bottom Levee District, north of Atherton in Jackson County. Jones & Smith, Independence, are Engrs. Noted Nov. 16.

+Levee Repair.—Yuma, Ariz. — The contract has been awarded to H. P. GILBERT, Calexico, Cal., for repair work on the levee north of the Abejas River.

Levee Enlargement.—Yuma, Ariz.—Bids will be received until Jan. 3 by J. A. Ockerson, Engr.-in-Charge, Yuma, for the enlargement of Volcano Lake Levee, about eight miles in length, situated 28 miles southeast of Calexico, Cal. The work will require about 175,000 cu. yds. of earth work and 70,000 sq. yds. of riprap facing on one side of the levee.

Dredging.—Bellingham, Wash.—Bids will be received until noon, Jan. 11, by Maj. J. B. Cavanaugh, Corps Engrs., U. S. A., Seattle, Wash., for dredging Bellingham Harbor.

Magazine Building, Etc.—Bremerton, Wash.—Bids were received as follows Dec. 16 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of one magazine building and one fixed-ammunition storehouse at the navy yard, Puget Sound, Wash.: A. W. Quist Co., $38,954; International Contract Co., $28,730; Erickson Construction Co., $24,900; W. N. Concannon Co., San Francisco, Cal., $29,671; Ford Bros., Bremerton, Wash., $26,400; Rounds-Hursen Co., $28,875; Sound Construction & Engineering Co., $29,400; F. M. Gribble, $24,937; Graff Construction Co., $27,257.20; Butler Construction Co., $30,600. All bidders are of Seattle, Wash., unless otherwise noted.

Fire Hose.—Seattle, Wash.—All bids received by the Board of Public Works for fire hose have been returned to the bidders unopened. The specifications will be revised. R. H. Thomson is City Engr.

Dredges.—Portland, Ore.—Specifications are being prepared for three large dredges for Oregon waters. Address Maj. J. J. Morrow, Corps Engrs., U. S. A., Portland.

Ferryboat.—St. Johns, Ore.—Bids will be received until Dec. 27 by the County Commissioners, Portland, for constructing a ferryboat for service between St. Johns and Claremont.

Channel Work.—Los Angeles, Cal.—Bids for straightening the channel of the Rio Hondo and for cleaning, excavating a storm water channel, building levees and pile wire dikes were opened by the Board of Supervisors, Dec. 11,

as follows: Edgar T. Wheeler, for 2,650 piles at $9.29 each, $24,618; Mercereau Bridge & Construction Co., 2,650 piles at $9.35, $25,777; Grant Bros. Construction Co. 20 cts. per cu. yd. for excavating, clearing, grubbing, etc.; estimated amount, 35,000 yds.

Wharf.—Los Angeles, Cal.—The Advisory Board of the Bureau of Harbor Improvements has instructed Homer Hamilton, City Engr., to prepare plans for a new fisherman's wharf and building in Los Angeles Harbor to be located on Terminal Island. Estimated cost, $65,000 to $70,000.

Conservatory.—Los Angeles, Cal.—Plans for the conservatory to be constructed in Eastlake Park are nearing completion. Estimated cost, $100,000. Noted Nov. 13.

Skating Rink.—Los Angeles, Cal.—The Pacific Ice Rink Co. has been incorporated here for $100,000. The company will erect an ice skating rink at Luna Park, Los Angeles. The building will be 150 × 300 ft., of steel and concrete construction. Two 90-ton compressors and 90,000 ft. of ammonia pipe will be installed to manufacture ice. Carl H. Pafenbach, of Luna Park, is interested.

Bell Tower.—Berkeley, Cal.—A bequest of $500,000 to the University of California, Berkeley, stipulates that $200,000 shall be spent in erecting a granite tower, 300 ft. high, in the center of the campus. Benjamin Ide Wheeler is Pres., Berkeley.

Seawall.—Coronado, Cal.—See item under Streets and Roads.

Piers.—Huntington Park, Cal.—Plans are being prepared by E. T. James, City Engr., of Santa Monica, Cal., for a reinforced concrete pier to be constructed at Huntington Park. Estimated cost, $75,000.

Piers.—Longbeach, Cal.—The City Council will award contracts within two months for the construction of pleasure piers at the foot of Pine Ave. and 39th Place. Competitive plans and estimates will be asked soon. Estimated cost, $40,000.

✚Street Cars.—San Francisco, Cal.—The contracts for furnishing 43 "pay-as-you-enter" type of street cars for the Geary St. municipal railway has been awarded to W. L. HOLMAN & CO., 18th and Indiana Sts., San Francisco, by the Board of Public Works, at $357,231. List of bidders noted Nov. 30.

Fire Apparatus.—San Francisco, Cal.—The Fire Commissioners will ask for bids for furnishing one motor-driven hook and ladder truck, automobiles for battalion chiefs, and a motor-driven delivery truck. Marsden Manson is City Engr.

Rock Removal.—Vallejo, Cal.—George A. McKay, Pub. Wks. Officer, at Mare Island, Vallejo, in his annual report to the Bureau of Yards and Docks, Washington, D. C., has recommended, it is reported, the removal of Commission Rock in the Mare Island Straits. Estimated cost, $112,000.

Stadium.—Vancouver, B. C.—The Park Commissioners will probably let contracts about Jan. 1 for the construction of a reinforced concrete stadium. Estimated cost, about $275,000. Heath & Gore, National Realty Co., Tacoma, Wash., are Archs. The Brown Co., Bailey Bldg., Seattle, is Engr.

Freight Shed.—Truro, N. S.—Bids will be received until Dec. 26 by A. W. Campbell, Chn. Government Rys. Managing Bd., Ottawa, for the construction of a brick freight shed here. Plans and specifications may be seen at the office of the Station Master, Truro, and at the office of the Chief Engineer, Moncton, N. B., where forms of proposal may be obtained.

Macadam Plant, Etc.—Westmount, Que.—Bids will be received by the City Clerk until noon, Jan. 3, for furnishing one bituminous macadam mixer plant and one steam road roller. A. Currie is City Surv.

Breakwater.—Ottawa, Ont.—Bids will be received until Dec. 29 by R. C. Desrochers, Secy. Dept. Pub. Wks., Ottawa, for the construction of a breakwater at Victoria Beach, Bay Harbor, Lake Winnipeg, Man. Plans, etc., can be obtained at the offices of W. Z. Earle, District Engr., Winnipeg, Man., on application to the Postmaster at Balsam Bay, Man., and at Ottawa.

✚Pipe.—Calgary, Alta.—The Calgary Gas, Lt. & Heat Co. has awarded a contract to the NATIONAL TUBE CO., Frick Bldg., Pittsburgh, for 300 miles of steel pipe for a pipe line to carry natural gas from Row Island to Calgary, at about $3,000,000.

U. S. POSSESSIONS AND CUBA.

Steel Cable, Etc.—Panama.—Bids will be received until 10:30 a. m., Dec. 28, by Maj. F. C. Boggs, Corps Engrs., U. S. A., Gen. Pur. Officer, Isthmian Canal Comn., Washington, D. C., for steel cable, steel, fire-hose, lead, etc., under Circular 668.

Piles.—Panama.—Bids will be received until 2:30 p. m., Jan. 10, by Maj. F. C. Boggs, Corps Engrs., U. S. A., Gen. Pur. Officer, Isthmian Canal Comn., Washington, D. C., for furnishing creosoted and untreated piles, under Circular 668B.

✚Cranes and Derricks.—Panama.—The Isthmian Canal Commission has awarded the contract to the INDUSTRIAL WORKS, Bay City, Mich., for Class I, under Circular 662, at $31,500. The contract requires the furnishing of four 15-ton locomotive cranes and one to six auxiliary hooks and lines. Bids were opened Nov. 22. List of bidders noted Dec. 7.

✚Buildings.—Hawaii.—The contract has been awarded by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., to the SOUND ENGINEERING & CONSTRUCTION CO., Lowman Bldg., Seattle, Wash., for the construction of a general administration building and a general storehouse at the Naval Station, Pearl Harbor, H. T., at $130,728. List of bidders noted Nov. 11.

✚Reinforcement Material.—Panama.—Contract has been awarded to the U. S. STEEL PRODUCTS CO., 30 Church St., New York, for Class 2, under Circular 665, at $15,486. The contract calls for furnishing steel slab and reinforcement material. Bids were opened Dec. 6 by Maj. F. C. Boggs, Corps Engrs., U. S. A., Gen. Pur. Officer, Isthmian Canal Comn., Washington, D. C.

Lumber.—Panama.—Bids were received as follows Dec. 18 by Maj. F. C. Boggs, Corps Engrs., U. S. A., Gen. Pur. Officer, Isthmian Canal Comn., Washington, D C., for furnishing lumber and piling as follows: (a) 850 M ft. B. M., Douglas fir and yellow pine lumber, various sizes, and (b) 1,700 40-ft. and 100 50-ft. untreated piles: American Tie & Timber Co., 11 Broadway, New York, (b) $12,702; 17.4 cts. per ft. A. S. Bacon & Sons, Savannah, Ga., (a) $27,200, $32 per M ft.; (b) $17,520; 24 cts. per lin. ft. J. H. Burton & Co., 45 Broadway, New York, (b) $13,797, 18.9 per lin. ft. G. Elias & Bro., Buffalo, N. Y., (a) $20,450, $24 and $25 per M ft.; (b) $13,530, 18.5 cts. and 19 cts. per lin. ft. W. R. Grace & Co., San Francisco, (a) $20,230, $23.80 per M ft. Gress Mfg. Co., 18 Broadway, New York, (a) $23,847, $24.65 to $33.25 per M ft. Robinson Lumber, Veneer & Box Co., New Orleans, La., (b) $16,425; 22.5 cts. Thomas E. Coale Lumber Co., Philadelphia, Pa., (b) $12,410, 17 cts. per lin. ft. Davis & Brandon, Woodzine, Ga., (b) $12,775; 17.5 cts. per lin. ft.

EXAMINATIONS.

Topographic Draftsman.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Jan. 17-18, to secure eligibles from which to make certification to fill vacancies as they may occur in the position of Topographic Draftsman in the Isthmian Canal Service, at $125 a month, unless it is found to be in the interest of the service to fill such vacancies by reinstatement, transfer, or promotion. As insufficient eligibles were secured as the result of the examination recently held for this position, qualified persons are urged to enter this examination. The examination will consist of the subjects mentioned below, weighted as indicated: Elementary mathematics, 20 points; plotting from field notes, 30 points; drawing and lettering, 30 points; training, experience, and fitness, 20 points. Applicants must have reached their 20th but not their 45th birthday. Examination form 1312.

Architectural and Structural Steel Draftsman.—Washington, D. C.—The U. S. Civil Service Commission announces an examiation on Jan. 17-18, to secure eligibles from which to make certification to fill a vacancy in the position of Draftsman, Architectural and Structural Steel, at a maximum salary of $1,500 a year, the position to continue for a period of one year, in the Lighthouse Service, San Francisco, Cal., office of the Inspector of the Eighteenth Lighthouse District, and vacancies requiring similar qualifications as they may occur, unless it is found to be in the interest of the service to fill the vacancy by reinstatement, transfer, or promotion. The examination will consist of the subjects mentioned below, weighted as indicated: Mathematics, pure and applied, 20 points; topographical and hydrographical surveying, 15 points; general building and steel construction and drawing, 40 points; training, experience and fitness, 25 points. Applicants must have reached their 22d birthday. Examination form 1312.

LIST OF CONTRACTS PENDING

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file for reference only unless otherwise noted at the office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.		Noted in issue of
12-23	Concrete floor, etc., Fort Lafayette, N. Y. (S.)	11-30
12-28	Bridge, Winnipeg, Man. (P. & S.)	12-7
12-30	Roof trusses, Washington, D. C. (S)	12-14
12-30	Ditches, Memphis, Tenn. (S.)	12-14
1-6	Sewer, Newport, R. I. (S)	12-14
1-11	Rock excavation, Gloucester, Mass. (S.)	12-21
1-13	Generator sets, etc., N.Y. (S.)	12-21
1-13	Compressed air mains, New York (S.)	12-21

Light, Heat and Power Plants.

Bids close.		Noted in issue of
12-22	Wiring, etc., New York	12-14
12-22	Wiring and fixtures, Leavenworth, Kan.	12-7
12-27*	Heating and ventilating apparatus, San Diego, Cal.	11-30
12-27	Lighting fixtures, Washington, D. C.	12-14
12-28	Reconstructing elec.-lighting system, New York	12-21
12-28	Electrical feeder cables, New York, N. Y.	12-21
12-29	Lighting and supplies, New York, N. Y.	12-21
1-2	Turbine engine, Anderson, Ind.	12-14
1-3	Wiring, Placerville, Cal.	11-30
1-4	Heating and electric wiring, New York, N. Y.	12-21
1-13	Generator sets, New York	12-21

Bridges.

Bids close.		Noted in issue of
12-21	Bridge, Atkinson, Ill.	12-21
12-22	Bridge, etc., Canonsburg, Pa.	12-21
12-23	Bridges, Hastings, Neb.	12-21
12-26	Bridge, Allentown, Pa.	12-21
12-27*	Bridge, Baltimore, Md.	12-14
12-28	Bridge, Winnipeg, Man.	12-7
12-28*	**Bridge, New Orleans, La.**	11-16
12-29	Bridge, Salt Lake City, Utah	12-21
1-1	Bridges, Amherst, Va.	12-21
1-3	Bridge, Goldsboro, N. C.	11-30
1-3	Bridge work, Havana, Ill.	12-21
1-4	Bridge work, Preston, Iowa	11-23
1-4	Bridges, New Hampton, Ia.	12-14
1-9	Bridges, Merced, Cal.	12-21
1-15	Bridge, Atlanta, Ga.	12-14
1-15	Viaduct, Atlanta, Ga.	11-23
1-15*	Bridges, Porto Rico (U. S. Poss.)	12-7
2-5	Bridge, Guadaloupe, Cal.	12-7

Buildings.

Bids close.		Noted in issue of
12-21	Addition to court-house, Leavenworth, Kan.	12-21
12-22*	Plumbing, Fort Snelling, Minn.	11-30
12-27	U. S. post-office, Miami, Fla.	11-16
12-27*	U. S. post-office, San Diego, Cal.	11-23
12-27	Church, Altoona, Pa.	12-21
12-28	**U. S. custom house, remodel, Boston, Mass**	11-2
12-29-30	Buildings, Hawaii, (U. S. Poss.)	11-30
1-1	Hospital, Salem, Ohio	12-7
1-1	Court house, Jonesboro, Tenn.	12-7
1-1	School, Marietta, Ohio	12-21
1-1	Church, Northwood, Iowa	12-21
1-3	Almshouse, Crown Point, Ind.	12-21
1-4	Hospital, Louisville, Ky.	11-23
1-4	U. S. post-office Laporte, Ind.	11-30
1-4	Court-house, Pasco, Wash.	12-21
1-5	U. S. post-office, Maryville, Mo.	11-30
1-6	U. S. post-office, Ellsworth, Me.	11-30
1-9	Court house, Mattoon, Ill.	12-7
1-9	Jail, Lake Charles, La.	12-21
1-10	U. S. post-office, Gaffney, S. C.	12-7
1-12	U. S. post-office, Mansfield, Ohio	12-7
1-13	U. S. post-office, Bismarck, N. Dak.	12-7
1-16	U. S. post-office, Frostburg, Md.	12-14
1-16	Courthouse, Forsythe, Mont.	12-21
1-29*	U. S. post-office, Santa Barbara, Cal.	12-21
3-20	U. S. post-office, Juneau, Alaska	12-7

Water-Works.

Bids close.		Noted in issue of
12-26	Water impvts., Hastings, Minn.	12-21
12-27	Water extensions, Vancouver, B. C.	11-30
12-28*	Water pipe, etc., Talahassee, Fla.	12-14
12-29	Pump, Winnipeg, Man.	12-14
12-29	Water pipe, etc., Minneapolis, Minn.	12-21
12-29*	Pipe, Muskogee, Okla.	12-21
1-8	**Watermains, Euclid, Ohio**	12-7
1-10*	Canal, Montrose, Colo.	12-21
1-12*	Standpipe, Erie, Pa.	12-21
1-15	Engine, pump, etc., Newberg, Ore.	12-21
1-15	W.-wks. materials, Kingfisher, Okla.	12-21
1-22*	Pump, Dubuque, Iowa	12-14

Sewers.

Bids close.		Noted in issue of
12-21	Sewers, Buffalo, N. Y.	12-21
12-26	Sewer, New York, N. Y.	12-21
12-28	Sewers, East Liverpool, O.	12-21
12-28	**Sewers, Fostoria, Ohio**	12-14
12-29	Sewer system, Kingstree, S. C.	12-7
12-30	Sewer, White Plains, N. Y.	12-14
1-2	Sewers, Waco, Tex.	12-21
1-4	Sewers, Union Springs, Ala.	12-14
1-6	Sewer system, Fallon, Nev.	12-14
1-15	Sewers, New Philadelphia, Ohio	12-21
1-15	Sewage disposal plant, Springfield, Mo.	12-7
3-1	Sewers, Mattoon, Ill.	12-7

Streets and Roads.

Bids close.		Noted in issue of
12-22	Paving, etc., Cincinnati, O.	12-7
12-22	Street impvt., Indianapolis, Ind.	12-14
12-22	Paving, New York, N. Y.	12-14
12-23	Grading and paving, Pleasant Ridge, Ohio	12-14
12-25	Paving, Hannibal, Mo.	12-14
12-26	Culverts, Los Angeles, Cal.	12-21
12-27	Paving, Buffalo, N. Y.	12-21
12-27	Road, Anderson, Ind.	12-14
12-27	Paving, Jacksonville, Fla.	12-7
12-27	Paving, Lincoln, Neb.	11-30
12-28	Paving, New York, N. Y.	12-21
12-28	Street improvement, East Liverpool, Ohio	12-21
12-29	Wood block, Minneapolis, Minn.	12-21
12-29	Paving, Jacksonville, Fla.	12-14
1-1	Road, Huntington, Ind.	12-14
1-1	Road, Rensselaer, Ind.	12-21
1-1	Gravel road, Newport, Ind.	12-21
1-2	Highway, Winamac, Ind.	12-21
1-2	Road, Paoli, Ind.	12-21
1-2	Road, Brownstown, Ind.	12-21
1-2	Highway, Lawrenceburg, Ind.	12-21
1-2	Gravel road, Knox, Ind.	12-21
1-2	Gravel road, Vincinnes, Ind.	12-14
1-2	Macadam roads, Logansport, Ind.	12-14
1-2	Roads, Fowler, Ind.	12-14
1-2	Macadam road, Bloomfield, Ind.	12-14
1-3	Macadamized road, Greensburg, Ind.	12-21
1-4	Road, Wilkesbarre, Pa.	12-21
1-15	Viaduct, Atlanta, Ga.	11-23
1-16	Paving, London, Ohio	12-21
1-18	Gravel road, Portland, Ind.	12-14
1-22	Paving, Montclair, N. J.	12-21
1-24	Street improvement, Carroll, Iowa	12-21
2-1	Impvts, Johnson City, Tenn.	12-21
2-1	**Paving, Rochelle, Ill.**	11-23

Miscellaneous.

Bids close.		Noted in issue of
12-22	Elevator, Fort D. A. Russell, Wyo.	12-14
12-23	Concrete floor, etc., Fort Lafayette, N. Y.	11-30
12-23*	Steel forgings, etc., Wheeling, W. Va.	11-30
12-26	Steel, Washington, D. C.	12-14
12-26*	Cable, New London, Conn.	12-14
12-26	Freight shed, Truro, N. S.	12-21
12-26	Repairs to fireboat, N. Y.	12-21
12-26	Steam rollers, New York	12-21
12-27	Ferryboat, St. Johns, Ore.	12-21
12-27	Steel filing cases, New York	12-21
12-27	Drainage ditch, Auburn, Neb.	12-14
12-27*	**Dredges, San Francisco, Cal.**	10-5
12-28	Tile drain, Rockwell City, Iowa	12-14
12-28	Stone wall, New York	12-21
12-28	Steel cable, etc., Panama, (U. S. Poss.)	12-21
12-28	Greenhouse, New York	12-21
12-28	Tile drains, Forest City, Ia.	12-21
12-29	Ditch, Red Lake Falls, Minn.	12-14
12-30	Ditches, Memphis, Tenn.	12-14
12-30	Roof trusses, etc., Washington, D. C.	12-14
12-30*	**Gate machines and pumps, Panama (U. S. Poss.)**	11-2
12-30*	Repairing jetty, Galveston, Tex.	12-7
1-2*	Dredging, Dallas, Tex.	12-7
1-3	Levee enlargement, Yuma, Ariz.	12-21
1-3	Macadam plant, etc., Westmount, Que.	12-21
1-4	**Battleships, Wash., D. C.**	11-9
1-4	Drainage work, Eldora, Ia.	12-14
1-4	Temperature system, Bellingham, Wash.	12-14
1-6	Material for rack railway, etc., Panama (U. S. Poss.)	12-14
1-8*	Dredging, Wash., D. C.	12-14
1-10	Piles, Panama (U. S. Poss.)	12-21
1-10	Riprap, Memphis, Tenn.	12-21
1-11	Dredging, Bellingham, Wash.	12-21
1-11*	Subway, New York.	12-21
1-11	Rock excavation, Gloucester, Mass.	12-21
1-11	Pier, San Francisco, Cal.	12-14
1-13	*Steel barges, Cincinnati, O.	12-21
1-13	Compressed air mains, N. Y.	12-21
1-15	Breakwater, Bar Harbor, Me.	12-21
1-15*	Dredging, Portland, Me.	12-21
1-15*	Timber, Detroit, Mich.	12-14
1-15*	Lock gates, Detroit, Mich.	12-14
1-19	Monument, Little R'k, Ark.	12-14
1-27	Ditch, Elbow Lake, Minn.	12-21
1-30*	Dikes, Philadelphia, Pa.	12-21
2-1	Gunboats, Wash., D. C.	11-23
2-6	**(1912) Cranes, rails, Uruguay (Foreign)**	11-2
4-23*	(1912) Harbor work, Chili	12-7

Examinations.

Examination date		Noted in issue of
12-28	**Assistant mining engineer, Washington, D. C.**	11-30
1-10	**Surveyor.—Washington, D. C.**	12-14
1-17	**Topographic Draftsman, Washington, D. C.**	12-21
1-17	**Architectural and Structural Steel Draftsman, Washington, D. C.**	12-21

CONTRACT PRICES.

†Pier and Bulkhead.—Providence, R. I.—Bids were received by the State Harbor Commissioners, Nov. 28, for the construction of Pier I and bulkhead at the Providence Docks, as follows: (A) F. E. SHAW, Providence, (awarded contract); (B) W. L. Ball, Jr., & Co.; (C) T. A. Scott Co.; (D) Sanford & Brooks Co.; (E) William L. Miller; (F) General Contracting & Engineering Co.; (G) alternate bid; (H) Phoenix Construction Co.; (I) McHarg-Barton Co.; (J) W. H. McKeyes & Co.; (K) Coleman Bros.; (L) Butler Bros. Constructing Co.; (M) W. H. Ellis; (N) N. Y. Submarine Contracting Co., & McKinnon Constructing Co.; (O) alternate bid 2; (Q) Willmarth & Mackillon. The item bids were as follows:

INDUSTRIAL NOTES.

Mr. W. H. McIntyre, formerly Fourth Vice-Pres. Equitable Life Assurance Co., is now First Vice-Pres. and Gen. Mgr. of Manning, Maxwell & Moore, Inc.

The Stockholders of the Thompson-Starrett Co., 51 Wall St., New York, at the recent annual meeting elected two new directors, Mr. Edward L. Marston, of Blair & Co., and Mr. Robert Olyphant, Dir. U. S. Mortgage & Trust Co.

Mr. W. D. Hawkins, formerly of the Hill-Hawkins Boiler & Tank Works, is now connected with the tank department of the Kennicott Co., manufacturers of steel plate, with offices in the Corn Exchange Bank Bldg., Chicago, Ill.

TRADE PUBLICATIONS.

GAS FURNACE.—American Gas Furnace Co., 24 John St., New York City. Paper; 8 × 10 ins.; pp. 16; illustrated.

This pamphlet contains a description of the automatic heat controller invented by Mr. Geo. F. Machlet, which automatically holds the heat of a gas furnace within 5° F.

CLOTH PINIONS.—General Electric Co., Schenectady, N. Y. Bulletin 4878. Paper; 8 × 10½ ins.

An unusual machine element is here described—a pinion made out of cloth. The blanks from which the pinions are

PIER AND BULKHEAD, PROVIDENCE, R. I.

	A	B	C	D	E	F	G	H
150,000 cu. yds. excavation	$0.15	$0.14½	$0.15	$0.15½	$0.16	$0.15	$0.15	$0.19
177,960 lin. ft. creosoted piles, Y. P.	.42	.44	.42½	.41	.45	.45	.41½	.44
10,890 lin. ft. oak piles	.40	.35	.30	.34	.40	.41	.41	.38
16,600 lin. ft. untreated spruce or pine piles	.25	.30	.30	.24½	.18	.23½	.23½	.25
10,600 cu. yds. gravel filling	.60	.90	.95	.85	1.10	.65	.65	1.10
2,415 cu. yrs. cinder fill	.40	.22	.38	.55	.60	.35	.35	.30
3,500 cu. yds. rip-rap	1.00	1.43	1.30	1.75	1.65	1.35	1.35	1.40
300 cu. yds. concrete	6.00	8.00	10.00	15.00	7.70	8.75	8.75	5.90
460 cu. yds. wall masonry	9.00	10.00	11.00	12.00	8.00	10.00	10.00	10.00
1,057 ft. lumber, Y. P.	45.00	49.00	51.25	47.00	49.75	57.00	57.00	55.00
8,065 sq. yds. 4½-in. thick reinforced-concrete floor	.90	1.32	1.50	1.90	1.65	1.95	1.95	1.15
8,065 sq. yds. asphalt	1.35	1.65	1.50	1.90	1.65	1.25	1.25	1.70
32,000 lbs. cast iron	.03	.05	.04	.05	.04	.03½	.03½	.04
Totals	$189,208	$208,290	$209,649	$212,415	$216,805	$217,838	$211,610	$220.955
Alternate bid A	$174,450							
Alternate bid B	$154,740							

PIER AND BULKHEAD, PROVIDENCE, R. I. (Continued).

	I	J	K	L	M	N	O	P	Q
150,000 cu. yds. excavation	$0.17	$0.15	$0.17	$0.14	$0.17	$0.17	$0.17	$0.17	$0.18
177,960 lin. ft. creosoted piles, Y. P.	.46	.43½	.49	.47.7	.44	.54	.52	.34	.50
10,890 lin. ft. oak piles	.40	.38	.40	.28	.38	.37	.37	.37	.33
16,600 lin. ft. untreated spruce or pine piles	.25	.25	.25	.35.2	.23	.25	.25	.25	.24
10,600 cu. yds. gravel filling	1.00	.80	1.00	.90	1.90	.95	.95	.95	1.26
2,415 cu. yds. cinder fill	1.00	.45	.50	.40	.90	.25	.25	.25	.41
3,500 cu. yds. rip-rap	1.75	1.30	2.00	1.00	2.50	1.32	1.32	1.32	1.76
300 cu. yds concrete	7.00	10.00	10.00	6.60	8.00	7.33	7.33	7.33	8.00
460 cu. yds. wall masonry	12.00	30.00	8.00	13.30	14.00	11.00	11.00	11.00	24.00
1,057 ft. lumber, Y. P.	55.00	51.00	50.00	66.70	49.75	55.00	55.00	55.00	76.00
8,065 sq. yds. 4½-in. reinforced-concrete floor	1.00	1.80	1.25	1.01	1.90	1.43	1.43	1.43	1.80
8,065 sq. yds. asphalt	1.60	1.75	1.75	1.50	1.65	1.77	1.77	1.77	1.80
32,000 lbs. cast iron	.03	.06	.07	.04	.06	.03¾	.03¾	.03¾	.02½
Totals	$222,719	$223,304	$226,003	$228,941	$234,823	$237,500	$233,941	$201,908	$267,707

†Bridge.—Portland, Ore.—Bids for constructing the superstructure of a bridge over the Willamette River on the western extension of Broadway, according to plans prepared by Ralph Modjeski, Consult. Engr., Monadnock Block, Chicago, were received Dec. 1, by the Mayor and Executive Board. The contract for the substructure was awarded Dec. 30, 1910, to the UNION BRIDGE & CONSTRUCTION CO., Kansas City, Mo., at $557,640. Noted Jan. 12, Feb. 2, Aug. 17, Oct. 5, Oct. 12, and Dec. 14. The bids for the superstructure were as follows: (A) Pennsylvania Steel Co., Steelton, Pa.; (B) Robert A. Wakefield, Portland; (C) Sound Contracting & Engineering Co., Seattle, Wash.; (D) U. S. Steel Products Co., New York:

SUPERSTRUCTURE, BROADWAY BRIDGE—PORTLAND, ORE.

STRAUSS DESIGN.

	A	B	C	D
14,955,000 lbs. structural steel work	$0.0398	$0.043	$0.04767	$0.04416
176,000 lbs. operating machinery	.108	.10	.16	.12
Electrical mach'y, lump sum	11,200.00	14,324.00	12,386.00	14,542.00
Royalty for bascule, lump sum	17,000.00	17,000.00	17,000.00	17,000.00
666 M. ft. B. M. creosoted timber	50.00	58.00	44.00	51.00
1,435 sq. yds. paving, Shuman	3.75	4.20	5.00	4.15
10,270 sq. yds. paving, wood block	2.20	2.90	2.20	2.85
4,433 sq. yds. sidewalk, concrete	4.70	2.60	3.50	2.55
6,300,000 lbs. counterweights	.032	.025	.013	.024
Total	$774,159	$793,702	$867,229	$808,690

RALL DESIGN.

	A	B	D
13,968,000 lbs. structural steel work	$0.0401	$0.043	$0.0416
183,000 lbs. operating machinery	.105	.108	.12
Electrical machinery, lump sum	11,200.00	14,842.00	14,542.00
Royalty for bascule, lump sum	12,000.00	12,000.00	12,000.00
666 M. ft. B. M. creosoted timber	50.00	58.00	51.00
1,435 sq. yds. paving, Shuman	3.75	4.20	4.15
10,270 sq. yds. paving, wood block	2.20	2.90	2.85
4,433 sq. yds. sidewalk, concrete	4.70	2.60	2.55
4,350,000 lbs. counterweights	.21	.25	.17
Totals	$693,777	$744,068	$753,219

STRAUSS MODIFIED, A.

	A	B	D
14,000,000 lbs. structural steel work	$0.0401	$0.043	$0.04416
171,000 lbs. operating machinery	.105	.10	.12
Electrical machinery, lump sum	11,200.00	14,324.00	14,542.00
Royalty for bascule, lump sum	17,000.00	17,000.00	17,000.00
666 M. ft. B. M., creosoted timber	50.00	58.00	51.00
1,435 sq. yds. paving, Shuman	3.75	4.20	4.15
10,270 sq. yds. paving, wood block	2.20	2.90	2.85
4,433 sq. yds. sidewalk, concrete	4.70	2.60	2.55
5,430,000 lbs. counterweights	.22	.25	.24
Totals	$705,621	$754,263	$768,245

SCHERZER.

	A
14,245,000 lbs. structural steel work	$0.0394
200,000 lbs. operating machinery	.10
Electrical machinery, lump sum	11,200.00
Royalty for bascule, lump sum	17,000.00
666 M. ft. B. M. creosoted timber	50.00
1,435 sq. yds. paving, Shurman	3.75
10,270 sq. yds. paving, wood block	2.20
4,433 sq. yds. sidewalk, concrete	4.70
3,290,000 lbs. counterweights	.27
Total	$700,476

The American Rolling Mill Co., Middletown, Ohio, manufacturers of American ingot iron, entertained the members of the National Corrugated Culvert Association at its works early in December. The delegates were taken to Middletown in special cars, escorted through the company's work where the process of manufacturing American ingot iron was inspected.

The Moore Light Co., 169 Malvern St., Newark, N. J., announces that Mr. James Bronis, who has served this company in various capacities during the past eight years, has left his position to take up work in a new organization. Mr. Bronis is a member of the Illuminating Engineering Society and the National Sales Managers' Association.

cut consist essentially of cotton or similar material compressed between steel side plates. After the teeth are cut, the cloth filler is impregnated with oil. The advantage of this construction lies in noiseless operation, long life and high tooth strength. They are recommended particularly for geared motors.

STEEL TRANSMISSION TOWERS.—Archbold-Brady Co., Syracuse, N. Y. Paper; 6 × 9 ins.; pp. 16; illustrated.

Several typical installations of steel structures for supporting overhead electric transmission lines are described and pictured in this artistic pamphlet.

ASPHALT BLOCK PAVEMENT.—Hastings Pavement Co., 25 Broad St., New York City. Paper; 7 × 10 ins.; pp. 16; illustrated.

An account of the manufacture and use of asphalt blocks is worked up into attractive form in this pamphlet. A few well chosen illustrations show installations of these blocks.

CATERPILLAR TRACTION ENGINES.—Holt Caterpillar Co., Peoria, Ill. Paper; 3½ × 6 ins.; pp. 16; illustrated.

The pamphlet relates to the use of these gasoline caterpillar engines for farm and agricultural work. There are a number of testimonials and a list of persons and corporations using the machines.

SINGLE-PHASE MOTORS.—Bell Electric Motor Co., Garwood, N. J. Paper; 6 × 9 ins.; pp. 15; illustrated.

The claimed advantages of the Bell single-phase motor are presented herein, together with some general views of the mechanical construction. The motor is a commutator type, in which the commutator is short-circuited after the starting period is completed.

FEED-WATER HEATERS.—Frank L. Patterson & Co., 26 Cortlandt St., New York City. Paper; 6 × 9 ins.; pp. 48; illustrated.

What is known as the Patterson-Berryman design of closed feed-water heater is described here. A shell contains a series of inverted U-shaped seamless drawn brass tubes, through which the water circulates. There is a settling chamber for collecting and blowing off the impurities which may be precipitated. There is no oil extractor, extra pump, floats, traps nor water valves to manipulate, and the heater is virtually a part of the pipe line.

PRIESTMAN SEWAGE EJECTORS.—Merritt & Co., Camden, N. J. Catalog; paper; pp. 15; illustrated.

The operation of this particular make of sewage ejector is described and statements are made as to its special application to sewage purification works where it is necessary to lift sewage. Tables of dimensions are given.

WATTHOUR METER.—Duncan Electric Mfg. Co., Lafayette, Ind. Bulletin 20. Paper; 6 × 9 ins.; pp. 25; illustrated.

This bulletin contains a general description of one model of the Duncan watthour meter. This is of the general direct-current motor type, but as the fields are without iron it is adapted for both alternating and direct current.

STEAM TURBINES.—De Laval Steam Turbine Co., Trenton, N. J. Paper; 3½ × 6 ins.; pp. 31; illustrated.

The De Laval Steam Turbine Co. has issued a small pamphlet describing the new multi-stage, single-geared, steam-turbine units of 500 KW. and over, which have recently been brought out. The booklet also contains some general comparisons of prime movers.

HEATING SYSTEMS.—Warren Webster & Co., Camden, N. J. Paper; 6 × 9 ins.; pp. 16; illustrated.

The vacuum heating system installed by this company in the Boston City Hospital is described here. Steam is furnished from a central plant to 28 buildings, and the necessary equipment for satisfactory service over this large area is set forth in considerable detail.

CORK-CONCRETE FLOORS.—Frantz Djorup, 903 Washington Blvd., Chicago. Circular; 8½ × 11 ins.

These one-page circulars relate to the Austro-German sanitary floor of cork concrete, which may be used in new or old buildings. References are given to a large number of buildings in and around Chicago in which this material has been used as a floor finish.

ARC LAMPS.—General Electric Co., Schenectady, N. Y. Bulletin 4882. Paper; 8 × 10½ ins.

An enclosed flaming arc lamp is described in this bulletin. This lamp uses impregnated electrodes of any standard make. To prevent the deposition of fumes on the globes, a condensing cover has been provided along which the gases circulate to and from the arc.

ELECTRIC RESISTANCE UNITS.—Wirt Electric Specialty Co., Germantown, Pa. Bulletin 1106. Paper; 6 × 9 ins.; pp. 12; illustrated.

The various small resistance units made by this company are described and pictured in this bulletin. These are mostly for attachment to lighting circuits for reducing the voltage to the small values needed for certain applications, such as lamp dimmers and fans.

OIL DRYER.—General Electric Co., Schenectady, N. Y. Bulletin 4872. Paper; 8 × 10½ ins.

The outfit manufactured by this company is for the purification of transformer oil of all kinds, crude petroleum for oil-fired furnaces, insulating varnish and japans, and various viscous insulating compounds. The apparatus consists essentially of a filter press, a pump and a motor. These different parts are mounted on a base of steel I-beams.

PLANERS.—Joseph T. Ryerson & Son, Chicago. Paper; 8½ × 11 ins.; pp. 15; illustrated.

The Rockford planer is described, including one form which has a variable-speed device. Sectional drawings illustrate some of the parts. It is stated that this particular size of publication (letter size) is adopted to enable single pages or bulletins to be enclosed with letters, which arrangement is considered economical and of special advantage.

PUMPS.—Goulds Mfg. Co., Seneca Falls, N. Y. Bulletin 102. Paper; illustrated.

Single-acting, triplex, plunger pumps manufactured by this company are described and pictured in this bulletin. In all of these designs the pump crank-shaft is geared to a small countershaft, which bears a tight and loose pulley. In place of these pulleys various forms of geared and direct-connected motors and engines may be substituted.

WATTHOUR METER.—General Electric Co., Schenectady, N. Y. Bulletin 4886. Paper; 8 x 19½ ins.

This company has designed a new meter for accurately measuring the power used by comparatively small consumers. The meter is designed for 5 and 10-amp. circuits of 100 to 120 volts, or for 200 to 240 volts for two and three-wire systems. The instrument is an induction type, in which an effort has been made to reduce the cost of installation and maintenance without impairing accuracy.

CEMENT-MAKING AND MINING MACHINERY.—Power and Mining Machinery Co., Milwaukee, Wis. Stiff Paper; 6 x 9 ins.; pp. 86; illustrated.

After an introduction describing the rapid growth of the cement industry in this country, this booklet takes up in detail the manufacture of cement. Crushers and crushing plants are illustrated and described very fully. Conveyors, screens, dryers, in fact every machine, necessary for the making of Portland cement receives due attention. Besides these automatic scales for proportioning the mixtures are also cataloged; while 3 pages are devoted to the discussion of the Loomis-Pettibone gas generating system as an economical power for operating cement works.

ELECTRIC POWER APPARATUS.—Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa. Bulletins 1028 and 1190. Paper; 7 x 10 ins.; pp. 23 and 11; illustrated.

The first of these bulletins describes the rotary converters manufactured by this company. The general features of designs are described and the mechanical construction is pictured.

In the second bulletin engine-driven alternating-current generators of 50 to 1,100-KVA. are described. These are for direct connection to steam or gas engines.

This company in October started the publication of a little house organ bearing the name "Small Motors." This is intended to reach the dealer in small electric motors for general household, store and office work. It will take up in each issue practical applications rather than theoretical discussions. The October issue contains articles on "Usefulness in the Home," "Helping the Furnace with a Small Blower," "A Chuck for Polishing," etc.

ENGINEER'S TRANSIT.—Ledder & Probst, Boston, Mass.; paper; 6 x 9 ins.; pp. 9; illustrated.

The transit described in this circular is made by Schultz, Ledder & Probst, of Boston, Mass., and Paris, France. The telescope is 10¾ ins. long, extending to 11½ ins. and can be reversed even when extended for focusing on near objects. The objective is 1¼ ins. in diameter and has a magnifying power of 26 diameters. The eye piece is achromatic with screw arrangement for focusing on the cross wires. The telescope axis is 5 ins. long, and is provided with dust caps to bearings and a means for taking up wear. The vertical circle is 5 ins. in diameter, equipped with a double vernier. The vernier is mounted on a separate casing and not screwed to the standard. The main part casting, which is patented, consists of standards, upper or vernier plate, spindle, bubble guard and tangent piece. All these are cast in one solid piece of metal, and are, therefore jointless, and are capable of retaining their component parts in their relative positions, even under adverse circumstances due to difference in temperature, transportation and accidents. The standards are ribbed and so arranged as to give plenty of space between them for a 4-in. needle compass. The horizontal circle is 6¾ ins. diameter over all, 6 ins. diameter to edge of graduations. The plate is graduated from 0° to 360° in each direction, with figures inclined in the direction they should be read. The vernier seats are milled out instead of turned and placed. The female center or socket to which the horizontal circle is attached is made of hard drawn phosphor bronze, not cast, and is guaranteed by the makers as the best non-magnetic center. The foot plate or leveling base permits a full ¾-in. shift and is low and well reinforced. This instrument weighs 14½ lbs., and is sold complete with compass, level, and full vertical circle for $252.00.

STEEL CROSS TIES.—Carnegie Steel Co., Pittsburgh, Pa. Paper; 8 x 5½ ins.; pp. 86; illustrated.

According to this catalog steel cross ties have been used quite widely on both steam and electric railway tracks with considerable success. The booklet consists chiefly of a collection of half-tones showing experimental and practical installations on railway tracks in various parts of the country. One of the new features illustrated is the method of fastening the rails to the ties known as the "Hill" fastening. For this fastening ordinary spikes are driven into wood fillers, about 1¾-ins. square, held in place by a steel shell 3-16 ins. thick, which fits between the two flanges of the I-section tie.

CONCRETE PIPE.—Reinforced Concrete Pipe Co., San Francisco, Cal. Stiff paper; pp. 42; illustrated.

The object of this booklet is to demonstrate the adaptability of reinforced-concrete pipe for sewers and water-supply conduits. This company uses several types of reinforcement. The pipe is cast in sections and the interlocking joints cemented over in the field. The most important advantages claimed for this type over the monolithic construction are the density and uniform thickness of the walls, the certainty of proper location of the steel, and the elimination of shrinkage cracks. The concrete used is a wet mixture which flows into place without tamping. This company also makes plain concrete pipe of the same type.

CONDENSERS.—Schutte & Koerting Co., Philadelphia, Pa. Catalog 5, Section A. Paper; 8 x 11 ins.; pp. 24; illustrated.

Two types of condensers are described in this pamphlet. The first is known as an "eductor" and the second as an inductor. The first type requires a head of water of about 20 ft., while the second lifts its own water-supply. Both types are designed to draw the exhaust steam along with the downward projecting needle jets of water which serve to condense the steam.

Catalog 6, Section B, describes a line of apparatus which has been developed by this company for cooling the circulating water where it is necessary to economize in the supply of water. The important part of the whole installation seems to lie in the "centrifugal-spray" nozzles, as the makers term them.

STRUCTURAL STEEL.—Carnegie Steel Co., Pittsburgh, Pa. Imitation leather; 5 x 7¾ ins.; pp. 256; illustrated.

This book contains practically all the shapes rolled on the structural, plate, bar and rail mills of the Carnegie Steel Co. It supersedes and cancels the Shape Book of 1903. Profiles of each shape and tables of the dimensions are given. There is a very complete table of weight of flat-rolled steel. The most notable feature of the book is the remarkably large number of shapes shown, about 150 different kinds of shapes, not counting the different sizes of the same shape, of structural steel. Rails are shown in 32 sections, and also a great variety of splice bars. The book is a catalog of rolled-steel shapes and not designed to take the place of the Carnegie Pocket Book, which contains the properties of the various sections.

ELECTRIC SWITCHBOARDS.—General Electric Co., Schenectady, N. Y. Miscellaneous Bulletins. Paper; 8 x 10½ ins.

A line of direct-current switchboard panels for small central stations and isolated plants is described in Bulletin 4876.

In Bulletin 4877 are shown panels for small mining plants. These have single pole apparatus and are for use in stations with a grounded negative. The bulletin shows connection and dimension diagrams.

General notes on the use of switchboard relays in modern power-houses are found in Bulletin 4857, together with a description of the types of apparatus developed for circuit-opening, time-limit, low-voltage, no-voltage, overload, reverse-current, relays, etc.

A new bulletin (No. 4866) has been issued to cover this company's line of horizontal edgewise instruments for switchboard service. The bulletin supersedes previous ones on the same subject and brings available information on these designs up to date.

WATERPROOFING.—F. W. Bird & Sons, East Walpole, Mass. Cloth; 5½ x 8 ins.; pp. 103; illustrated.

The title of this little book is "Specifications for Roofing, Building Insulation and Waterproofing." These specifications are, of course, prepared especially for the Bird "Neponset" products, although in the introduction it is stated that the purpose has been to make the directions so clear that if other products are desired they may be specified by merely changing the brand name. There are three chapters; the first takes up roofing and flooring in residences and mills, and is fully illustrated. The second chapter is on thermal insulation for cold storage plants. The last chapter deals with waterproofing of foundations, tunnels, bridges, floors, etc., giving wherever possible specific directions for permanently waterproofing these structures. This chapter is probably of the most interest to engineers and makes the book well worth its space in the engineer's library. This chapter also contains directions for acid-proofing the floors of battery rooms and waterproofing floors in buildings. The accompanying illustrations are well executed and clear in every detail.

CONCRETE PILES.—Simplex Construction Co., New York City. Boards; 9 x 7½ ins.; pp. 96; illustrated.

The Simplex concrete pile is described in this booklet. This pile is made in four distinct types known as the standard, molded, shell and composite types. The first named consists of a pile 16 ins. in diameter at the lower end fitted with a hollow cast-iron point, and cast in place within a steel shell which is removed when the pile is completed. In general no reinforcement is necessary The second type is a molded pile already cast but lowered into place within a steel shell, which is afterwards withdrawn. The cast-iron point of the shell remains in the ground and the cast pile rests upon it, being cemented to the point by a small quantity of soft concrete shell. The space between the shell and the cast pile is filled with cement grout and the shell withdrawn. This gives a roughened surface to the pile. The Simplex shell pile is a pile cast in place within a steel tube which is itself incased within a steel shell. The shell is withdrawn leaving the concrete pile enclosed in the steel tube. The fourth type is known as the Simplex composite pile and consists merely of a concrete pile resting on top of a wood pile. This is adapted to conditions where deep penetration is required and where the wood part of the pile will be permanently under water. The greater part of the catalog consists of half-tone illustrations of foundations.

CONVEYING MACHINERY, ETC.—Stephens-Adamson Mfg. Co., Aurora, Ill. Cloth; 6¼ x 9¼ ins.; pp. 672; illustrated.

It would be difficult to find a more complete and attractively gotten up catalog of conveying, transmission and screening machinery than this book. It is more than a catalog and will be a useful addition to any engineer's library, if he has to do with this class of machinery. On pages 6 and 7 are two useful diagrams prepared by Mr. R. W. Dull, M. Am. Soc. M. E., one giving the capacities of belt conveyors for various materials, and the other the horse power required for belt conveyors for from 20 to 600 tons of material per hour for lengths of conveyor from 50 ft. to 500 ft., in lifts of from 10 ft. to 100 ft. The illustrations throughout the book include both half-tones and line cuts showing the construction of many types of conveyors and transmission and screening machinery. Many illustrations are given showing typical installations. Some 30 pages are devoted to rope drives and included are several useful tables of horse power, etc. Pulleys, friction drives, clutches and gearing are also given in great variety. On pages 588-590 are tables giving the horse power of cast-iron spur and bevel gearing at 100 R.P.M., from gears with 10 teeth, 1-in. pitch, to those with 200 teeth, 3-in. pitch. The usual collection of tables and data are given, and also much not generally found in manufacturers' catalogs, such as joints in standard timber framing, proportions of retaining walls and footing courses for masonry walls.

METAL FLUMES.—Hess Flume Co., Denver, Colo. Paper; 10½ x 7½ ins.; pp. 16; illustrated.

Metal flumes are coming more and more into use for conveying water for power and irrigation and there are now several kinds on the market. The catalog before us describes a type familiar to most engineers. The Hess flume consist of a galvanized metal trough suspended by round-iron rods attached to timber cross-ties. The joints between sections are, of course, one of the essential features in any design for a metal flume. In the Hess flume each section of trough has a channel shaped bell at each end. The joints are made by lapping the bells of adjacent sections together and binding them between a beveled rib which fits into the bell of the upper plate, flush with the bottom of the trough, and the round-iron suspender which passes in a beveled groove under the lower plate. The ends of the suspender rods are threaded and pressure between the ribs is had by taking up on the rods with nuts. The advantage claimed for this joint is that the inside of the flume is perfectly smooth over the joints. The catalog also describes a patent expansion joint for use on this kind of flume. Another feature of the Hess flume is a longitudinal reinforcement at the tops of the trough, made of flat strips in the smaller sizes and of rolled angles in the larger sizes of flume. The catalog also illustrates and describes the Hess apron for the intake and outlet ends of a flume, and sluice boxes for taking water out of the flume at any point. These flumes are made in semicircular cross-sections from 1 ft. 3¼ ins. to 12 ft. 8 4/5 ins. diameter. A table of discharge capacities for the various sizes on slopes of 1.58 to 10.56 ft. per mile is given. The catalog is printed in white on blue paper so as to resemble a blue print, and is quite attractive in appearance. It will prove useful in any irrigation engineer's file.

For other Proposal Advertisements see pages

53, 54, 56, 57

of Advertisements and Construction News, page 280

CONTRACTORS

Bids Opened January 11, 1912

for the construction of Section 3 of the Lexington Avenue Rapid Transit Railroad of New York City.

2,611 feet of four-track subway, in Broadway, between Howard and Bleecker Streets.

Write or call concerning forms of contracts, plans and specifications.

PUBLIC SERVICE COMMISSION FOR THE FIRST DISTRICT,

154 Nassau Street, New York City.

ELECTRIC CLOCK AND BELL SYSTEM.

BOARD OF EDUCATION.

Long Branch, N. J.

Sealed proposals will be received at this office until 12 o'clock noon, 29th of December, 1911, for the furnishing and complete installation of an electric clock and bell system for a new school building at Long Branch, N. J. All in accordance with specifications prepared by C. A. Slocum, Engineer, Long Branch, N. J.

Copies of specifications may be obtained of the Engineer for the Chairman, A. T. Woolley, Long Branch, N. J.

Successful bidders will be required to furnish a bond for 25% of the amount.

The Board reserves the right to reject any or all bids.

JOHN T. BRITTON,

Secretary.